1702 PART1

· 💬 `

.

5. G

GEOLOGICAL REPORT

Geological Survey on

The Ascot Claims & Surrounding Area

Dome Mountain, Omineca M.D., NW 15 miles E of Smithers, 54°, 126°SE

by G.R.Peatfield J.R.Loudon,P.Eng. owned by Texas Gulf Sulphur Company

July 1st - September 10th, 1968

# Canada

# In the Matter of

Province of British Columbia

The attached report "Geological Survey of the Ascot Claims and Surrounding Area, Omineca Mining Division" by G.R. Peatfield.

I,	J. Russell Loudon, P. Eng	g. ,	of 701 – 1281 v	N. Georgia St.
	Vancouver 5, in the l	Province of Br	itish Columbia.	
<b>Øø £</b> in	<b>polemnly Declare that</b> I have super- the attached report and that	vised the wo	ork carried out	and described
a)	The survey was carried out on 1968 by	during the p	period July 1 -	September 10,
b)	G.R. Peatfield (geologist)	July 1-31,1 @ \$1180.00/	.968 31 days 'month	\$1,180.00
	J.M. Newell (geologist)	Aug. 1-7 an 10 days @ \$	nd July 8-10 1355.00/month	485.00
	B. Chapman (assistant)	July 1-31 @ \$615.00/m	31 days Nonth	615.00
c)	Their living expenses were at the rate of \$8.00/day/man for a total of 72 man days		576.00	
d)	Helicopter support costs -	7 hours @ \$1	40.00/hour	980.00
			TOTAL	\$3,836.00

To Wit: ∫

And I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath, and by virtue of the Canada Evidence Act.

Berlared before me Vincour  $\mathbf{at}$ in the Province of British Columbia. day of this A.D. 1968 mba A Notary Public in and for t A Commissioner for taking Columbia Columbia Gold Commissioner

TABLE	OF	CONTENTS

---

\_

	Page
SUMMARY	i
General Statement	i
CONCLUSIONS	i
INTRODUCTION	1
Purpose of Project Location, Access and Terrain Crew Field Methods Ownership, Neighbouring Properties History	1 2 2 2 3
GENERAL GEOLOGY	4
Regional Setting Lithology Structure Folding Faulting Intrusive Rocks	4 6 6 7
HISTORICAL GEOLOGY	
Depositional Environment Deformation	7 8
ECONOMIC GEOLOGY	
Nature of Observed Mineralization Mineralization Controls Possible Nature of Deposit	8 10 10

APPENDIX I - Rock Types Statutary Declaration Qualifications - G.R.Peatfield

# LIST OF ILLUSTRATIONS

		Scale
Location Map (following page 1)		l"=4 miles
<sup>M</sup> (Geological Map - Ascot Group	in pocket	1"=1000'
Equal Area Projection - minor fold axes		following page 6
🏂 Topographical Map - Ascot Group	in pocket	1"=1000'

.

#### GEOLOGICAL REPORT

#### Dome Ascot Claim Group

#### SUMMARY

#### General Statement

This report summarizes the results of geological mapping, completed by Texas Gulf Sulphur Company on and around the Dome-Ascot claims, Dome Mountain, 15 miles E of Smithers, B.C.

#### CONCLUSIONS

- 1. Reconnaissance prospecting and mapping in the summers of 1966 and 1967 suggested the presence of a shallow synclinal basin in the Dome-McKendrick area. Several small lead-zinc showings were found and 160 claims were staked. More detailed work in 1968, in which many more bedding attitudes were measured, has shown the structure to be far more complex than previously suspected. A series of tight folds, almost isoclinal in the central part of the area, form a synclinorium trending northwestwards through the area.
- The presence of weak, stratigraphically controlled, lead-zinc mineralization has been confirmed, and the favourable beds traced through the structural complexities with a certain degree of success.

#### INTRODUCTION

#### Purpose of Project

The purpose of the Dome-Ascot Mapping Programme was twofold:

- To investigate small Pb-Zn showings and geochemical anomalies, in lead and zinc, outlined ruing the course of the 1966-67 Bulkley-Babine Reconnaissance Projects.
- 2. To elucidate the structure of an area containing complexly folded volcanic and sedimentary rocks. These rocks had been found to contain weak strata-bound lead-zinc mineralization. The prime object of geological mapping was to outline an area favourable for detailed geochemical and geophysical work.

#### Location, Access and Terrain

The mapping covered an area of about 25 square miles, centered 18 miles due east of Smithers (Fig. 1), and occupying the saddle between Dome and McKendrick Mountains and lower ground to the southwest, toward Guess Lake. Mapping had to be extended beyond the claim boundary in order to obtain a more complete understanding of the geological setting.

Access was by helicopter from Smithers, but a road has recently been constructed through the map-area by Dome-Babine Mines Ltd. (N.P.L.), providing access to their holdings on Dome Mountain. This road was almost impassable during 1967 and 1968, but may improve with time and further work.

The terrain is subdued; low, rolling hills rise to elevations of 4500 feet or less. Much of the ground consists of open swamps and gently sloping alpine meadows. Small lakes are a common feature,



and streams are plentiful. To the east and west of the area mapped, the ground drops off steeply and timber cover becomes much heavier.

#### Crew

The crew for the project consisted of four men and a cook. One geologist and assistant handled geological mapping, while two geochemical samplers covered all major drainages in the area and covered the grid (See Geochemical Report). J.M.Newell visited the project regularly and assisted with the geological mapping.

#### Field Methods

Geological mapping was controlled by a topographic map, on a scale of 1"-1000', prepared from air photographs by Lockwood Survey Corporation. A final geological map was prepared showing the location of all outcrops visited. Transportation from camp to the field was usually via helicopter, chartered from Okanagan Helicopter's base at Smithers.

#### Ownership, Neighbouring Properties

The company's 160 claim group was staked by Jean Alix Company, Val D'Or, P.Q. The number of claims can probably be reduced as the result of this work and the geochemical and geophysical surveys carried out.

Dome-Babine Mines Ltd. (N.P.L.), control several crowngranted claims covering lode gold showings on Dome Mountain, and have staked a number of additional claims, mostly to the southeast. The possibility of contravention of the extreme northwest claims of the Dome-Babine holdings by the extreme southeast claims of the Ascot Group definitely exists, but probably amounts to no more than a few hundred feet along the southern boundary of the Ascot Group.

- 2 -

History

The history of mining activity in the Dome-McKendrick area is much less complex than in the Babine Range to the north. Heavy bush cover over parts of the area makes prospecting difficult, and the ground has remained relatively free of small "hi-grade" workings. There are, however, some developments of interest in the general vicinity.

The most important of these is the old "Dome Mountain Gold Camp". Lode gold showings, comprising quartz veins containing free gold, galena, sphalerite, pyrite and chalcopyrite, were found early in this century, and considerable work was done on these prospects. The veins occur in volcanic rocks on the southeast flank of Dome Mountain, and much trenching and some underground work was done between the Wars. (B.C.Minister of Mines Reports). The camp was then dormant until interest was revived in 1966. The following year, Dome Babine Mines Ltd. (N.P.L.), was formed by W.Yorke-<sup>H</sup>ardy for the purpose of further exploring these gold properties.

In 1933, a group of four claims was staked to cover a vein outcropping on the south side of McKendrick Mountain. The showing is a narrow quartz vein, mineralized with arsenopyrite, pyrite and chalcopyrite with small amounts of galena and sphalerite. Low gold and moderate silver values were reported.

Lead-zinc showings on upper Canyon Creek, above the Texas Gulf Sulphur camp, were staked in 1952. A few small pits were dug on a narrow lead-zinc-barite zone exposed in the creek valley, but work was minimal. Directly below the Texas Gulf Sulphur camp, a lens of massive pyrite was found in the creek bank, but this occurrence was apparently not staked.

- 3 -

#### GENERAL GEOLOGY

#### Regional Setting

The Dome-McKendrick complex lies wholly within the Hazelton volcanic-sedimentary sequence of Middle to Upper Jurassic age. In the Babine Range to the north, three divisions have been recognized; the sedimentary Middle Division lies between the primarily volcanic Upper and Lower Divisions. In the Dome-Ascot map area, the top of the Lower Division, all the Middle Division, and the bottom of the Upper Division are represented.

The Middle Division sequence mapped here appears to represent a local basin of deeper water in the predominantly shallow-water Hazelton Seas. The development of considerable thicknesses of limestone and calcareous sediments indicates a relatively long period of quiet water conditions.

The structure of the complex represents a transition between the intense deformation, with overfolding and probable thrust faulting, mapped in the Babine Range to the north, and the more gentle, open folding encountered to the south, in the McQuarrie Lake - Grouse Mountain area.

#### Lithology

A detailed description of the rock-types encountered in the course of the mapping has no place in the body of the report, and is included as Appendix I. Briefly, the rocks are typical Hazelton volcanic and volcanic-sedimentary types, with rather more "clean" sedimentary rocks than is usual.

- 4 -

The <u>Lower Division</u> sequence consists of very coarse purple conglomerates interbedded with schistose purple tuffs, generally also coarse-grained. Toward the top of the Division tuffs predominate. Some tuffaceous argillite and tuffaceous greywacke are also present. Rhyolitic rocks are rare in the Lower Division.

The <u>Middle Division</u> is primarily a sedimentary one. Limestone, argillite, and greywacke, with impure varieties of all three, are present in large amounts. Some of these sediments are markedly tuffaceous, and there are numerous thin, discontinuous bands of green andesite, rhyolite, and related fragmental rocks. Purple volcanic rocks are uncommon. Two varieties of coarse-grained fragmental rocks are present; one is a conglomerate with a heterogeneous composition and a generally limey matrix, the second is a breccia containing large angular fragments of generally siliceous rock, with occasionally some sedimentary fragments.

The <u>Upper Division</u>, to the south, is predominantly volcanic in character, containing great thicknesses of green andesite and related tuff, and major masses of rhyolite and rhyolitic tuff. Purple volcanics are rare. Sedimentary rocks are more common than in the Lower Division.

Intrusive rocks are typically fine-grained, equigranular diorites, commonly hornblendic. Some porphyritic varieties are present, only slightly less basic than the hornblende diorite. Associated with these porphyritic rocks are a few small irregular basic pegmatites containing scattered grains of pyrite and rarely chalcopyrite.

- 5 -

#### Structure

#### Folding

The structure on and around the claim group is complex. A series of tight folds trend southeasterly across the area and plunge to the southeast. Folding is much more intense in the incompetent Middle Division sedimentary rocks than in the volcanic rocks to the north. The latter are typified by chevron folding, while isoclinal folding is characteristic of the sediments of the Middle Division. Many of these folds show evidence of overturning to the east, indicative of thrusting from the west. This agrees well with the structural picture built up for the Babine Range to the north, and with the overall Cordilleran trend.

A statistical analysis of 34 observed minor fold axes is presented in the form of a contoured equal-area diagram (see following page). The most important direction of minor folding is represented by a plunge of approximately  $25^{\circ}$ , on an azimuth of  $120^{\circ}$ . This conforms with the mapped orientation of the major folds. The secondary peak at  $155^{\circ}/27^{\circ}$  reflects the folding in the southwest portion of the map area. The diagram also emphasized the tendency for the plunge of the minor fold axes to decreas as the azimuth increases. On a larger scale, this would indicate that the major folds tend to flatten to the south, a conclusion which was reached independently, by study of outcrop patterns and observation from the air.

#### Faulting

Faulting is not of major importance, but several minor strike-slip faults were mapped, generally at high angles to the axes of the major folds. These are probably shear faults set up by the same stresses which caused the folding; which they appear to post-date.

- 6 -



#### Intrusive Rocks

Intrusive rocks are not of major extent on the claims. Two sills appear to have intruded the sedimentary rocks before they were deformed, and were subsequently folded with the. They show minor contact effects on the sedimentary rocks; intrusion at shallow depth is postulated.

Two small plugs, probably representing volcanic necks, were mapped. Both consist of fine-grained hornblende diorite, but the more westerly one has an envelope of more acidic feldspar porphyry. Narrow cross-cutting dioritic dykes are present throughout the area mapped. They are probably related to the plugs described above.

#### HISTORICAL GEOLOGY

#### Depositional Environment

The Lower Division rocks are the product of volcanic activity, and associated rapid erosion, which deposited great thicknesses of coarse, poorly-sorted, volcanic conglomerate. Minor amounts of tuffaceous rock represent periods of particularly intense volcanic activity. In time, erosion became less rapid, possibly indicating a general rise of sea level. Volcanic activity continued, resulting in the deposition of significant thicknesses of purple tuffs. Sedimentary deposits became more common as time progressed.

The base of the Middle Division is defined, in this area, as the position where greywacke beds become abundant. The position of the dividing line between tuffaceous rocks and non-tuffaceous sediments indicates that seas encroached from the east. Above the basal beds, the sedimentary rocks become finer-grained, indicating a progressive deepening of the sea. Ultimately, major thicknesses of limestone and limey sediments were laid down. Sporadic outbursts of volcanic activity occured, resulting in the deposition of coarse-

- 7 -

grained fragmental rocks, some massive green andesites and related tuffs. The central fold-belt represents a local basin of quiet water sedimentation, with more active volcanic conditions prevailing to the east and west.

Higher in the Middle Division, sediments became coarsergrained, indicating a filling in of the basin. Volcanic activity increased, and tuffaceous deposits encroached on the sedimentary basin.

The base of the Upper Division is marked by the appearance of abundant andesitic flows and tuffs. The presence of major beds of sedimentary rock indicates that the area was periodically partly covered by water. Acid volcanicity became more common, probably centered to the south and west of the area mapped.

Two stratiform dioritic bodies may have been extruded under water, but no pillow structures were observed, and it is the writer's opinion that the bodies are sills, intruded before deformation of the sediments.

#### Deformation

The primary deformation in the map-area is an overfolding, parallel to the Cordilleran Trend, and almost certainly a product of the Cordilleran overthrusting tendency. Folding is greatly intensified in the incompetent sediments.

#### ECONOMIC GEOLOGY

#### Nature of Observed Mineralization

Sulphide mineralization is widespread although most is not of direct economic interest. That which is of interest is the leadzinc mineralization in the sedimentary rocks of the Middle Division.

- 8 -

Galena, sphalerite, pyrite, and occasionally chalcopyrite, occur disseminated in acid tuffs, and along bedding planes in limestone. In these showings, located 300 feet above the camp on Canyon Creek, there are also irregular veins or lenses of coarsely crystalline barite and calcite, containing considerable amounts of sphalerite and some galena. All the sphalerite seen is pale green, presumably having a very low iron content. Pyrite is common, generally rimming fragments in tuffaceous rocks or lying along the bedding planes in sediments.

Mineralographic work by the writer on selected specimens from the showing area, produced some interesting results. Very fine emulsion textures of galena in sphalerite seem to indicate deposition of a single phase "gel", from which these two minerals exsolved. Formation of such a "gel" indicates deposition under very low-temperature conditions, in a submarine environment. The very low iron content of the sphalerite supports this hypothesis. Disseminated sphalerite in fragments in tuffaceous rocks and also filling interstices, suggests the sulphides were deposited before complete lithification of the tuff.

Directly below the Texas Gulf Sulphur camp, on the south bank of Canyon Creek, a lens of massive pyrite has been partially exposed, near the contact of a graphitic argillite and a massive rhyolite. The size of the lens is not known, but it is probably not very large. It consists of coarse-grained, euhedral to subhedral pyrite, often in a porous aggregate. Thin folded "wisps" of chloritesericite schist occur within the pyrite body. No other sulphides are visible in the massive pyrite, but a few small quartz veins, containing a little pale sphalerite and, rarely, galena, occur close by.

- 9 -

On the lower reaches of Newell Creek, to the east of the map area, a small copper showing occurs in rhyolitic rocks. A weak shear zone contains discontinuous lenses of massive chalcocite up to three inches in width.

Pyrite is a common constituent of the sedimentary rocks, cspecially those of the argillaceous suite. In the argillites, pyrite generally occurs concentrated on bedding planes, and is thought to be syngenetic in origin. Several very minor occurrences of chalcopyrite were noted; none are of economic interest.

#### Mineralization Controls

Several controls have been postulated for lead-zinc mineralization in the area. The following are believed to be the most important:-

- The position in the stratigraphic sequence. Lead-zinc mineralization always occurs in the Middle Division sediments.
- The presence of limey sediments and rhyolitic tuffs or acid breccias. The limey sediments are usually argillaceous.
- Intrusive rocks, generally dykes occur near the known showings.
  This may constitute a third control.

#### Possible Nature of Deposit

Two types of lead-zinc-silver deposit are considered possible in this environment. The first, for which there is ample precedent in the Babine Range, is a small high-grade vein deposit, carrying appreciable silver values, but difficult to mine and having very low tonnage potential. Such a deposit would be of no direct interest to Texas Gulf Sulphur, but it is interesting to note that one such property, the Cronin-Babine Mine, is being successfully worked by a local lessor. The second possible target, and that which has greater potential, is a strata-bound massive sulphide body.

GRP/js

G.R.,Peatfield J.R. Loudon, P. Eng.

•

# APPENDIX I - Rock Types

For the purpose of mapping, 15 major rock types, falling into three main categories, are recognized. These will be discussed in some detail below, under the headings of <u>Volcanic Rocks</u>, <u>Intrusive</u> <u>Rocks</u> and <u>Sedimentary Rocks</u>. No stratigraphic sequence is implied by the order in which the rocks are described.

#### Volcanic Rocks (Map units 1-3)

Typical Hazelton volcanic rocks of acid to intermediate composition are very common, especially in the Upper and Lower Division sequences. Three groups of volcanic rocks are recognized, each group consisting of flow rocks and their pyroclastic equivalents.

#### Grey-Green Andesites (Map unit 1)

Andesitic lavas of this unit are typically massive, dark green and often almost dioritic in texture. Flow structures are rare. Abundant epidote and chlorite are characteristic; these minerals were doubtless derived from primary feldspar and mafic minerals by the process of saussuritization and/or propylitization. Gash veins, filled with milky quartz and crystalline epidote, indicate relatively intense remobilization. Narrow seams of serpentine and asbestos are occasionally present. Purple colouration, due to finely divided hematite, is rare, but sometimes seen. In some outcrops the rocks are vesicular, often with amygdule fillings of calcite. Sulphide minerals are rare, but some pyrite has been seen.

#### Grey-green Andesitic Tuffs

Tuffaceous varieties of the andesites are widespread. They are usually crystalline tuffs or fine-grained volcanic conglomerates. Many of the tuffs are waterworked, and fossils are sometimes present. The rocks are grey-green or brown in colour and have essentially the same mineral composition as the andesites. Quartz-epidote veins are much less common, and pyrite is rare.

#### Dull Purple Andesites (Map unit 2)

Purple lavas are less common than their grey-green counterparts. They are commonly fine-grained to aphanitic, and flow structures are rather more common. Purple colouration is due to abundant finelydivided hematite. Epidote and chlorite are present, but quartz-epidote veins are rare. Sulphide minerals are absent. Vesicular lavas were not observed.

#### Purple Andesitic Tuffs

Tuffaceous rocks of this unit are very much more plentiful than lavas. These tuffs are almost invariably schistose, consisting primarily of small (1/8" or less) lithic fragments, stained red by hematite. Locally, they are coloured green by epidote and chlorite. Calcite is common, generally occurring on the planes of schistosity. The tuffs grade with increasing coarseness, to a separate rock type.

#### Rhyolites and Dacites (?) (Map unit 3)

Rhyolites are typically buff to pink siliceous rocks. All rhyolite "flows" are tuffaceous to a degree, flow structures are well developed in some exposures. Many of these rocks contain glassy shards and occasional quartz "eyes", but most are fine-grained to aphanitic. Pyrite, and derived limonite, are common, and give the rhyolite a rusty appearance in the weathered exposure. Quartz veins are sometimes present. Minor copper occurrences usually in the form of malachite, have been observed.

- 2 -

- 3 -

#### Rhyolite Tuffs, Quartz-sericite Schists

Rhyolitic tuffs are predominantly schistose; locally quartzsericite schists have been developed. Pyrite and limonite are widespread, and the rocks are invariably "rusty". Quartz-siderite veins are common; in one outcrop these were found to contain minor amounts of galena.

Intrusive Rocks (Map units 13-14)

#### Fine-grained Hornblende Diorite (Map unit 14)

This, themost common of the intrusive rocks, is a finegrained, equigranular, dark grey-green diorite. Fine needles of hornblende, with some pyroxene, are set in a matrix of plagioclase and very rare quartz. The diorite is dense, unmineralized, relatively unaltered, and devoid of primary or secondary structures. In places it is difficult to distinguish between this rock and the coarser andesitic flows.

#### Feldspar Porphyry (Map unit 13)

A slightly more acid, weakly porphyritic phase of the diorite was encountered east of the company camp site, occurring as an envelope around a diorite plug. This rock is pale buff to pinkish, and consists of a matrix of feldspar and hornblende, set with abundant small phenocrysts of feldspar. Within this body are a few small, discontinuous basic pegmatites of larger plagioclase crystals, containing minor amounts of pyrite and chalcopyrite.

Quartz Porphyry or Intrusive Rhyolite (too small to appear on map)

One narrow dyke of quartz porphyry consists of an aphanitic siliceous groundmass with scattered clear subhedral quartz crystals or "eyes". The rock is very dense, white and "sugary" in appearance.

## Sedimentary Rocks (Map units 4-12)

By far the most abundant and diversified rocks encountered in the mapping fall into this category. Three of the units are coarsegrained conglomerates or volcanic breccias. These are described first.

## Purple Volcanic Conglomerate (Map unit 12)

This coarser-grained counterpart of the purple tuff already described, reaches maximum development in the northern portion of the map area. Large rounded pebbles, cobbles and boulders of purple volcanic rocks show evidence of submarine deposition. Sorting is poor, and thin discontinuous beds of purple tuff are common.

#### Grey Volcanic Conglomerate (Map unit 11)

A common rock type in the Middle Division sequence, this conglomerate consists of a poorly sorted aggregate of sub-rounded pebbles of all other rock types. The matrix is typically calcareous, and the unit often contains thin beds of tuffaceous or very silty limestone.

#### Acid Volcanic Breccia (Map unit 10)

Large angular fragmentsof acid volcanic rocks and some sedimentary rocks, set in a light, fine-grained matrix, characterize this breccia. In outcrop, the rock is buff-weathering and typically iron stained; limonite is derived from abundant disseminated pyrite. Sphalerite and galena have been observed in and associated with this rock.

#### Greywacke (Map unit 9)

This member consists of fairly clean, well-sorted greywacke and arkose, generally light grey, with an appreciable quartz content.

- 4 -

Lime is uncommon, and argillaceous beds are rare. The unit is of minor importance, and probably represents areas of re-working of the impure greywackes.

#### Limestone (Map unit 5)

Massive, bedded, pure white limestone is also an uncommon rock, but has been mapped in one area, associated with larger amounts of impure limestone.

#### Graphitic Argillite (Map unit 7)

This member is rare. The rock is a very fine-grained graphitic argillite, always intensely deformed, with segrations or veins of quartz and carbonate. Pyrite is common, giving rise to abundant iron staining.

#### Impure Greywacke (Map unit 8)

Perhaps the most abundant rock type mapped, the impure greywacke comprises poorly sorted sediments, often with considerable li e and/or argillite content. It is generally composed of angular grains of quartz, feldspar and volcanic rock. Colours vary from pale grey through light brown, with some green and purple hues as the unit grades to more tuffaceous rocks. Pyrite is common; quartzcalcite veins with pyrite, and locally chalcopyrite, have been noted. Fossils are present, but are not common.

#### Impure Limestone (Map unit 4)

Thin beds of impure limestone occur in the greywacke and argillite sequences. The rocks contain large amounts of impurities, in the form of argillite and sand-size particles. They grade vertically and laterally into argillites and arenites. The limestone shows marked

~ 5 -

flowage and thickening on the crests of folds. Galena and sphalerite have been noted, especially along the bedding planes.

# Argillaceous Sediments (Map unit 6)

. . . . . .

This unit includes black fissile argillite, limey argillite, and argillaceous greywacke. They are generally fine-bedded, often schistose, and usually strongly pyritic. Pyrite is generally concentrated along bedding planes.

### QUALIFICATIONS OF G.R.PEATFIELD, GEOLOGICAL ENGINEER Texas Gulf Sulphur Company Vancouver Office

#### ACADEMIC QUALIFICATIONS

Bachelor of Applied Science, University of British Columbia, 1966, in Geological Engineering

## EXPERIENCE

- 1. One summer 1964 geological assistant with Newconex.
- One summer 1965 geological assistant with Amax Explorations Inc.
- 3. One summer 1966 geologist, Texas Gulf Sulphur Company.

#### After Graduation:

 1. 1½ years 1967 to present, as geologist with Texas Gulf Sulphur Company.

G.R.Peatfield

рер Loudon, P.Eng.

APPENDIX I

.

<u>Rock Types</u>

# LEGEND 14 FINE GRAINED HORNBLENDE DIORITE PORPHYRITIC AND PEGMATITIC PHASE OF DIORITES 13 COARSE VOLCANIC CONGLOMERATE OR VOLCANIC BRECCIA GREY VOLCANIC BRECCIA 11 IO RHYOLITE BRECCIA GREYWACKE , MINOR ARKOSE 9 IMPURE GREYWACKE 8 GRAPHITIC ARGILLITE 7 6 UNDIFFERENTIATED ARGILLECEOUS SEDIMENTS 5 LIMESTONE 4 IMPURE LIMESTONE 3 RHYOLITE PURPLE VOLCANIC ROCKS 2 GREY TO GREEN ANDESITIC VOLCANIC ROCKS INDICATES TUFFACEOUS VARIETIES OF ABOVE ROCK TYPES 1000

# SYMBOLS SHOWINGS Outcrop Bo Barite Image: Second string of the second strin

BOUNDARY OF CLAIMS STAKED IN SEPTEMBER, 1967 BOUNDARY OF CLAIMS RETAINED IN 1968





