

83-#297 - 12326  
05/85

PROSPECTING REPORT  
PLAY MINERAL CLAIMS  
WHITESAIL LAKE, OMINECA M.D., B.C.  
93E/11, LAT.  $53^{\circ}31'$  N., LONG.  $127^{\circ}03'$  W.

OWNER & OPERATOR: MARLEY MINES LTD.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,326**

by

Anthony L'Orsa

30 April 1984

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ILLUSTRATIONS

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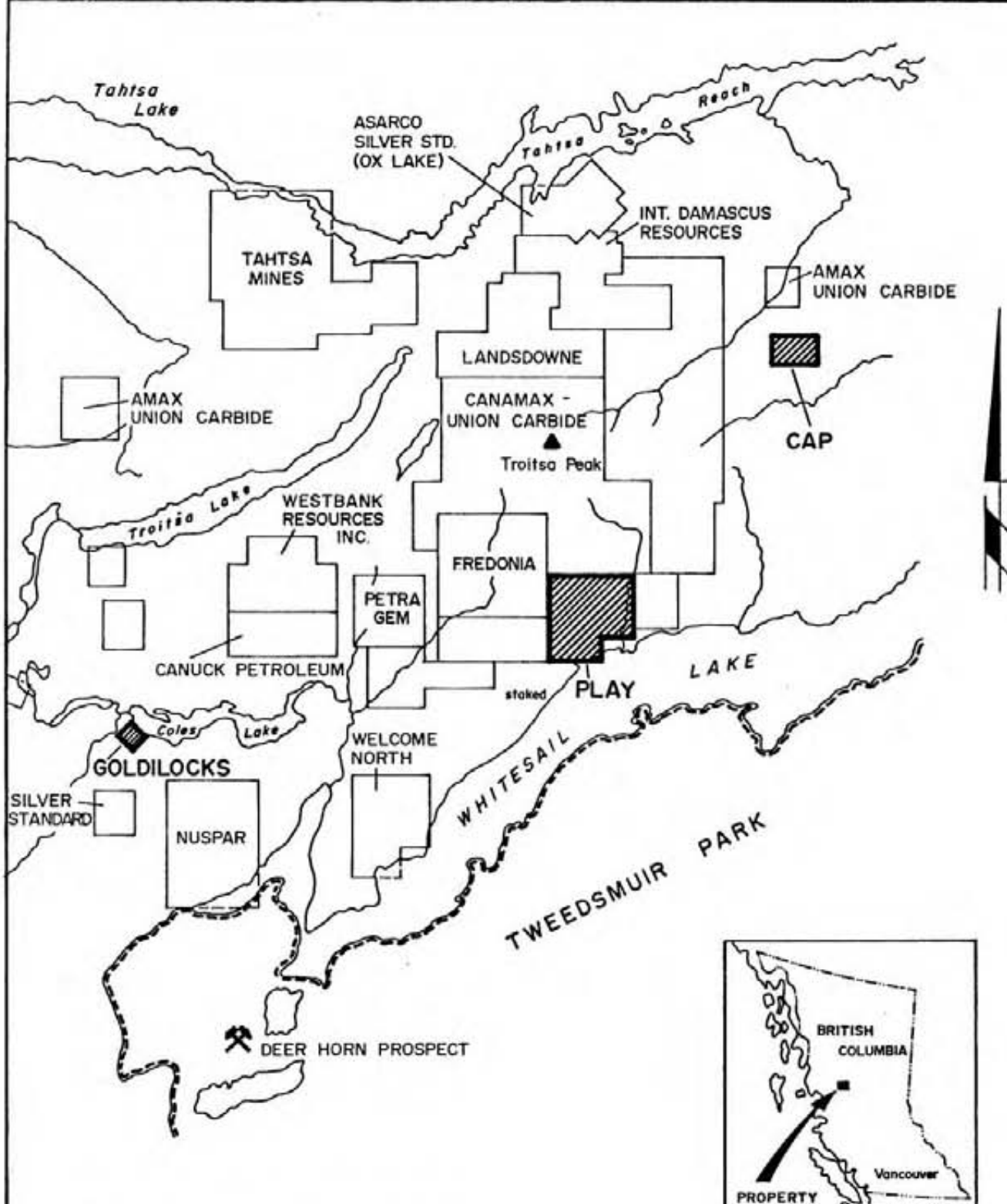
## SUMMARY AND CONCLUSIONS

The Play claims comprise 44 units situated about 96 km southwest of Houston, B.C., along the southern base of Troitsa Peak. The claims apparently cover a part of the Whitesail fault system with which gold and silver mineralization is associated on adjacent claims to the north held by Canamax Resources Inc. and Union Carbide of Canada Ltd. Most of the rocks observed along lower Cummins Creek appear to be of post-Jurassic age.

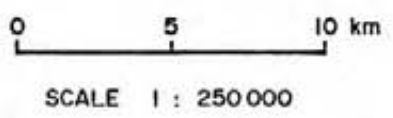
This is an unexplored prospect in a good geological environment. A major, pyritized shear zone, apparently sub-parallel to gold and silver-bearing shear zones higher up Troitsa Peak, offers an immediate exploration target.

## INTRODUCTION

Gold and silver were discovered in the Troitsa Peak area in 1981 by Dr. T. A. Richards and crew working under contract for Union Carbide Canada Ltd. (T. A. Richards, pers. comm.). Canamax Resources Inc. subsequently took over the exploration program, agreeing to spend \$250,000.00 in 1983 on what was described as "an early stage gold and silver discovery" with some emphasis upon a highly faulted zone on Troitsa Peak (Canamax, 1983). These events led to a staking rush in the Whitesail Lake area in 1983.



Note: Accuracy of claims other than those of MARLEY MINES LTD. is not guaranteed.



<b>MARLEY MINES LTD.</b>		
<b>PLAY, CAP &amp; GOLDILOCKS CLAIMS</b>		
WHITESAIL LAKE AREA BRITISH COLUMBIA		
DATE: Feb. 3, 1984	DRAWN BY: E.C.	<b>FIG. 1</b>

The Play claims are bounded by the Union Carbide-Canamax claims on the north. On 14 June 1983 I made a prospecting traverse down lower Cummins Creek, accompanied by prospectors Tom Bell and Paul Huel.

#### LOCATION AND ACCESS

The claims are centered at approximately  $53^{\circ} 31'$  north latitude and  $127^{\circ} 03'$  west longitude, in the Whitesail Range, along the southern base of Troitsa Peak, about 96 km south-southwest of Houston, B.C.

Access is by helicopter from Smithers or Houston. Float-equipped aircraft can land on Whitesail Lake but they cannot approach the shore near the claims because of forest flooded by the Alcan project. The nearest serviceable road is approximately 17 km northwest of the claims, on the opposite side of Tahtsa Reach.

The claims are normally free of snow from mid-May until November. However, substantial autumn snowfalls can occur in September and October.

#### PHYSIOGRAPHY

The claims extend from the north shore of Whitesail Lake at 825 m elevation above sea level to 1 174 m elevation on the south

slopes of Troitsa Peak. A hill on the Play 2 claim reaches an elevation of 1 225 m. All elevations are approximate.

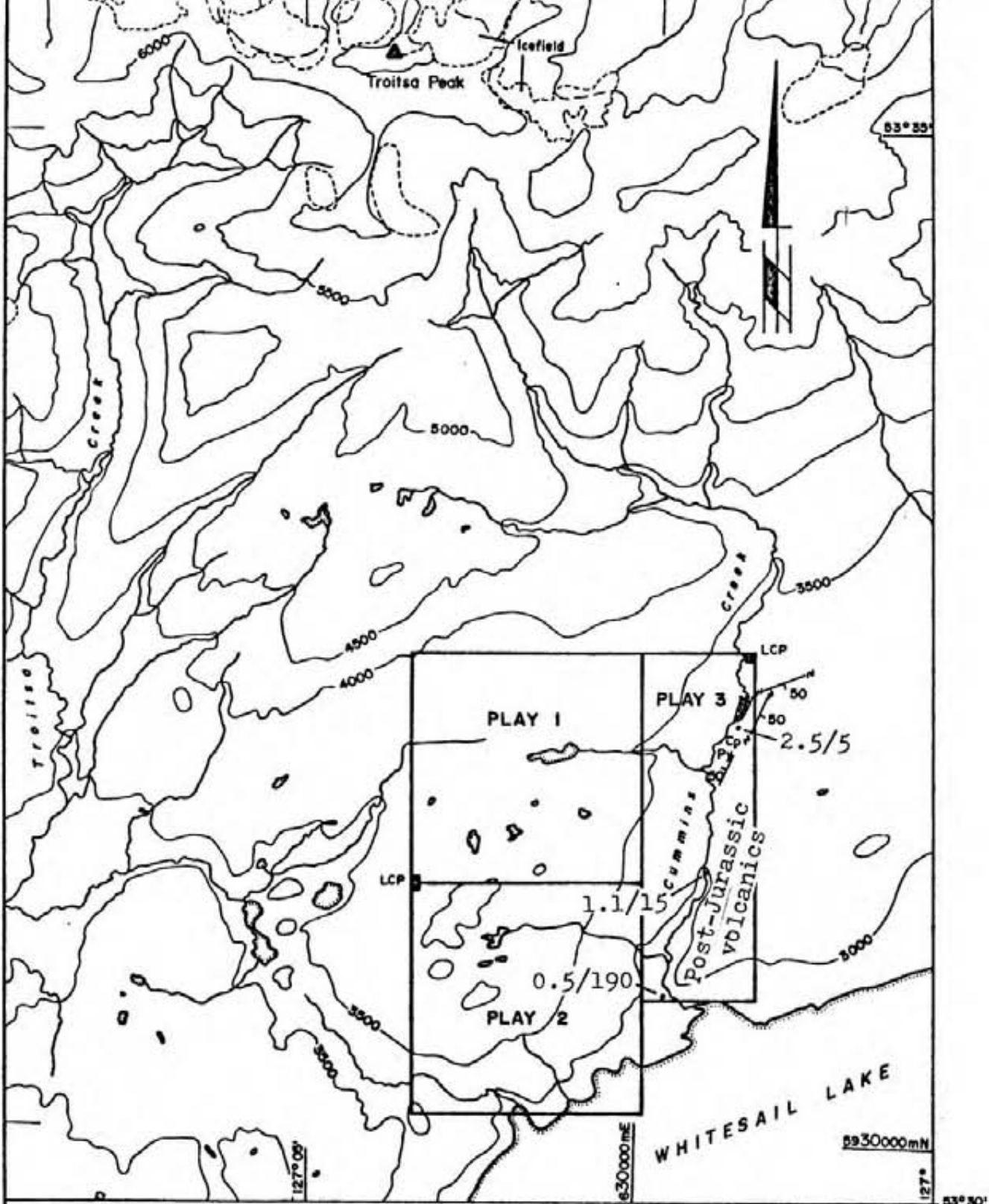
Much of the northern sector of the claims group presents low relief with several meadows and swampy areas. Cummins Creek is a strong year around stream that has cut a deep valley with numerous outcrops through Play 3. There are also several smaller creeks on the claims. In general, sufficient water should be readily available for drilling, mining and other activities.

More than 95% of the Play claims area is covered by overburden. Glacial drift depths of up to 9 metres were observed along some sections of Cummins Creek. Much of the claims area is heavily timbered with pine and balsam fir. There is little undergrowth in the Cummins Creek area.

#### CLAIMS AND OWNERSHIP

The Play claims comprise 44 units. They were recorded 12 May 1983 by John Stephens for E. Barazzuol, 2876 Trafalgar St., Vancouver, B.C.

<u>Claim</u>	<u>Units</u>	<u>Record No.</u>
Play 1	16	5156
Play 2	16	5158
Play 3	12	5157



93 E / 11

0 1 2 3 km  
SCALE 1 : 50 000 / ELEVATIONS IN FEET

**LEGEND**

- Zone of strong alteration. Zeolites, calcite, pyrite.
  - Major shear attitudes.
  - Bedding
  - Chalcopyrite
  - Pyrite
- 2.5/5 Lithogeochem. Ag ppm/ Au ppb.  
To accompany report by A. L'ORSA.

**MARLEY MINES LTD.**

**PLAY CLAIMS**

DATE : Feb. 3, 1984

DRAWN BY : E.C.

FIG. 2

Figure 1 shows the location of the Play and other claims held by Marley Mines Ltd. in the Whitesail Lake area.

I saw a portion of the east line of Play 3 and I have no doubt that the claims were staked in accordance with the regulations.

### GEOLOGICAL SETTING

The Whitesail Range is underlain by volcanic rocks with lesser amounts of interbedded clastic sedimentary rocks and a few intrusions of generally granitic to dioritic composition. The mountains are situated approximately 15 km east of the Coast Plutonic Complex. The volcanic rocks range in age from Early Jurassic (Hazelton Group) in the western part of the Whitesail Range to Tertiary (Ootsa Lake and Endako Groups) in the northeast. These rocks range in composition from basalt to rhyolite. Sedimentary rocks have been noted mainly in the Hazelton Group and overlying Ashman Formation (Duffell, 1959; Tipper et al., 1979; Woodsworth, 1980).

Intrusive rocks outcropping on Troitsa Peak have been assigned an Eocene age by Woodsworth (1980) and a Late Cretaceous age has been established for granodiorites north of Troitsa Peak at Ox Lake and Huckleberry Mountain and for a quartz diorite just west of the Whitesail Range (Carter, 1982).



The Tahtsa resurgent caldera, with which several potentially economic mineral deposits are associated, lies immediately west of the Whitesail Range (Hodder and MacIntyre, 1980). A relationship between certain resurgent calderas and some important mining districts is well recognized (e.g. Buchanan, 1981).

A major system of faults strikes northeasterly through the Whitesail Range. The system is marked by zones of rusty, sheared and brecciated rocks with a variety of vein fillings, including minerals of economic interest. A second, less prominent system of faults, strikes in a northerly direction.

Potentially economic mineral deposits in the general vicinity of the Play claims include widespread gold, silver and base metals mineralization associated with fault zones on the adjacent Canamax-Union Carbide claims on Troitsa Peak. The Ox Lake copper-molybdenum deposit (Richards, 1976) is 14.5 km north of the claims and the Huckleberry copper-molybdenum property (James, 1976) lies 16.5 km northwest of the claims.

#### GEOLOGY OF THE PLAY CLAIMS

According to Woodsworth (1980), the Play claims are underlain mainly by rocks of the Early Jurassic Telkwa Formation including basaltic to rhyolitic rocks as well as lesser amounts of sediments. The northern claims area probably covers some Late

Cretaceous or Early Tertiary volcanic rocks.

In a traverse down much of Cummins Creek from 990 m elevation to Whitesail Lake, I found a variety of extrusive rocks, many of apparently post-Jurassic age, ranging from amygdaloidal basalt flows to silicic tuffs and volcanic breccias. Some of the basalts carry chalcedony in amygdule fillings. The rocks range in colour from dark grey and green to light green and brown. Red clasts are present in some tuffs. Disseminated magnetite and hematite are present in many outcrops. Pyrite is common above about 960 m elevation and very small amounts of disseminated chalcopryite were also noted at one locality. A feldspar porphyry dyke (3 mm phenocrysts) was observed at about 967 m elevation.

A major fault zone is exposed in Cummins Creek in the area around 990 m elevation. Grey-green pyroclastic rocks are highly fractured and the fractures are filled by zeolites (laumontite has been identified) and calcite; quartz is rare. The rocks carry very fine-grained (approx. 0.1 mm) irregularly disseminated pyrite which locally occupies 10% of the rock. A short distance downstream, heavily fractured green andesite (?) contains coarser pyrite in fracture fillings and disseminations. In hand specimen, the rock can display 20% pyrite. Several different shear directions were noted in this fault zone. The topography suggests that the fault zone strikes southwesterly

from Cummins Creek across the Play claims, a distance of about 3 000 m.

Rock samples were collected for analysis along Cummins Creek and the results are listed below. Anomalous results are plotted on Figure 2. Although geochemical thresholds have not yet been established for these claims, the general threshold for gold may be about 25 ppb and that for silver is probably about 1.0 ppm.

<u>Number</u>	<u>Ag ppm</u>	<u>Au ppb</u>	<u>Location*</u>	
1-TB	0.2	5	El.3260	outcrop
2 "	0.5	5	"	float
3 "	0.5	5	3250	outcrop
4 "	0.4	5	3230	float
5 "	2.5	5	3220	talus
6 "	0.5	5	3200	outcrop
7 "	0.4	5	3150	"
8 "	1.1	15	3000	talus
9 "	0.8	20	"	"
10 "	0.5	5	"	"
4-PH	0.3	5	3150	float
5 "	0.2	5	3140	"
7 "	0.5	190	2850	"

\* Along Cummins Creek; elevations in feet

The analyses were done by Acme Analytical Laboratories Ltd., Vancouver, B.C.

  
Anthony L'Orsa  Geologist

REFERENCES

- Buchanan, L.J., 1981, Precious metal deposits associated with volcanic environments in the southwest: Arizona Geological Society Digest, volume 14, p. 237-262.
- Canamax Resources Inc., 1983, Prospectus.
- Carter, N.C., 1982, Porphyry copper and molybdenum deposits west-central British Columbia: B.C. Ministry of Energy, Mines and Pet. Res., Bull. 64, 150 p.
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- Hodder, R.W., and MacIntyre, D.G., 1980, Place and time of porphyry-type Cu-Mo mineralization in Upper Cretaceous caldera development, Tahtsa Lake, British Columbia, in Ridge, J.D., ed., IAGOD Symposium, 5th, Proc.: Stuttgart, E. Schweizerbart'sche Verlagsbuchhandlung, p. 175-183.
- James, D.H., 1976, Huckleberry, in Sutherland Brown, A., ed., Porphyry deposits of the Canadian Cordillera: CIM Special Volume 15, p. 284-288.
- Richards, G., 1976, Ox Lake, in Sutherland Brown, A., ed., Porphyry deposits of the Canadian Cordillera: CIM Special Volume 15, p. 289-298.
- Tipper, H.W., Campbell, R.B., Taylor, G.C., and Stott, D.F., 1979, Parsnip River British Columbia: Geol. Survey of Canada, Map 1424A, Sheet 93, Scale 1:1 000 000.
- Woodsworth, G., 1980, Geology of Whitesail Lake (93E) map-area B.C.: Geol. Survey of Canada, O.F. 708.

ITEMIZED COST STATEMENT

FIELD WORK:

A. L'Orsa @ \$300/day x 60%	\$ 180.00
T. Bell & P. Huel @ \$300/day x 60%	180.00

REPORT:

A. L'Orsa, 2 days @ \$350/day	700.00
Drafting	84.15
Typing, copying & postage	37.40

TRANSPORTATION:

Helicopter	600.00
Vehicle	40.00
Board	50.00

ANALYSES

105.30

\$1976.85

+ topo.

3000.00

IEK

4976.85

*A. L'Orsa*



Anthony L'Orsa, Geologist

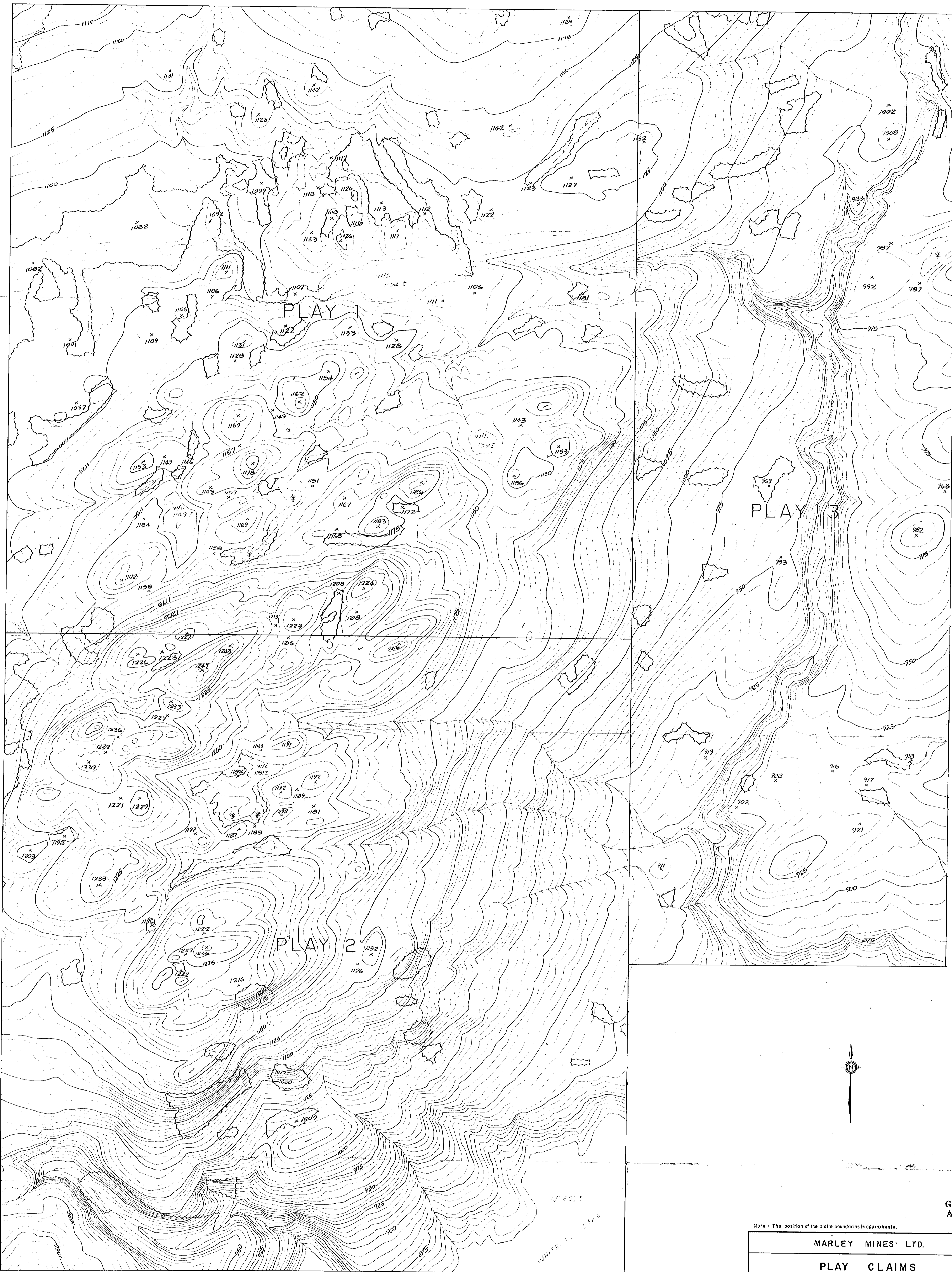
CERTIFICATE

I, Anthony T. L'Orsa, of Smithers, British Columbia, hereby certify that:

1. I am a consulting geologist with business address at Box 23, R.R. 2, Adams Road, Smithers, B.C.
2. I am a graduate of Tulane University, New Orleans, La., U.S.A. with the degrees of B.Sc. (1961) and M.Sc. (1964) in geology.
3. I have practised my profession in mineral exploration since 1962 in western Canada, Australia and Mexico.
4. I am a Fellow in good standing of the Geological Association of Canada and a member of the Society for Geology Applied to Mineral Deposits.
5. I visited the Play claims on 14 June 1983.
6. I have no interest, direct or indirect, in the properties or securities of Marley Mines Ltd. or their affiliates, nor do I expect to receive any such interest.



Anthony L'Orsa, Geologist



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

Note: The position of the claim boundaries is approximate.

MARLEY MINES LTD.	
PLAY CLAIMS	
PRELIMINARY RECONNAISSANCE TYPE MAPPING	
Compiled by <b>THE McELHANNAY GROUP LTD.</b> 466 Alberni St., Vancouver, B.C., Canada from aerial photography of approximately scale of 1:50,000 flown in 1979	
Scale 1:5000	Date May 1984
Contour Interval 5 Metres	Sheet No. 1 of 1

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PLAY CLAIMS