

EL 3 / 70

WELD RIVER AREA
TASMANIA

INLAND EXPLORATION

HALL, RELPH & ASSOCIATES PTY. LTD.
GEOLOGICAL & EXPLORATION CONSULTANTS

9TH FLOOR
36-38 CLARENCE STREET,
SYDNEY, 2000, AUSTRALIA
TEL. 29-5631

L. R. HALL. M.Sc., M.A.A.P.G., M.Aus.I.M.M.
R. E. RELPH. B.Sc., M.Aus.I.M.M.

31st March, 1970
MICROFILMED

INLAND EXPLORATION N.L.

EXPLORATION LICENCE 3/70, WELD RIVER AREA, TASMANIA

Exploration Licence 3/70 is located in southern Tasmania, approximately twenty-six miles west of Hobart. This extremely rugged area of some three hundred square miles includes most of the drainage of the Weld River above its junction with the Huon River and reaches northward to the Styx River south of Maydena.

Some sixty percent of the area is covered by Permian sediments and Jurassic dolerite of no present economic significance. However in the west of the area and in the depression of the Weld Valley rocks currently assigned to the Precambrian age crop out. These Precambrian sediments and metasediments are intruded by ultrabasic bodies and the present prospecting of the area by Inland Exploration N.L. is orientated towards evaluating the mineral potential of these older rocks particularly in the vicinity of the ultrabasic intrusions.

The Precambrian rocks consist of conglomerates, mudstones, siltstones, arenites and cherty limestones. As yet the geology of the area is but poorly known and the presence of these cherty limestones hints that part at least of this sequence may prove to be Cambrian in age. Reconnaissance prospecting of the area has revealed several old workings which presumably were worked for gold. Little documentation of these workings can be found and no production estimates can be made.

The serpentine body located on the Weld River near the centre of the exploration licence area was found to consist of a number of north west trending fractures

001

containing intruded serpentine. Much pyrite and some silicification adjoins the intrusions. Chromite was identified within the serpentine and the presence of gold and osmiridium is suspected.

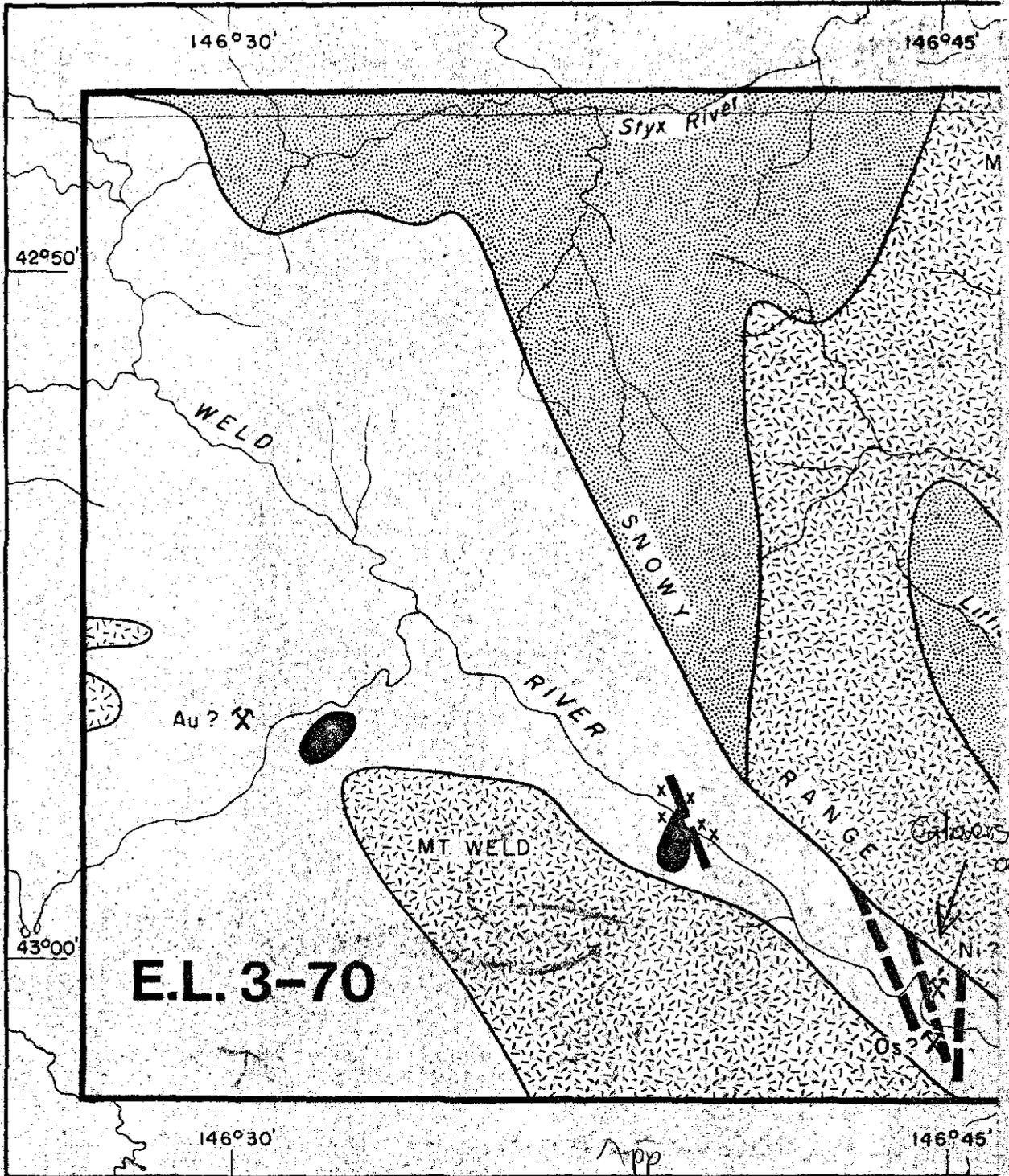
Previous attempts to adequately explore this rugged and remote region have failed because of the difficulty of the terrain and weather. It is believed that a reconnaissance geological survey of the area with intensive field prospecting is warranted and it is understood that Inland Exploration N.L. is prepared to carry out such a survey.

HALL, RELPH & ASSOCIATES PTY. LTD.

B. L. Wood

MF:RC

002



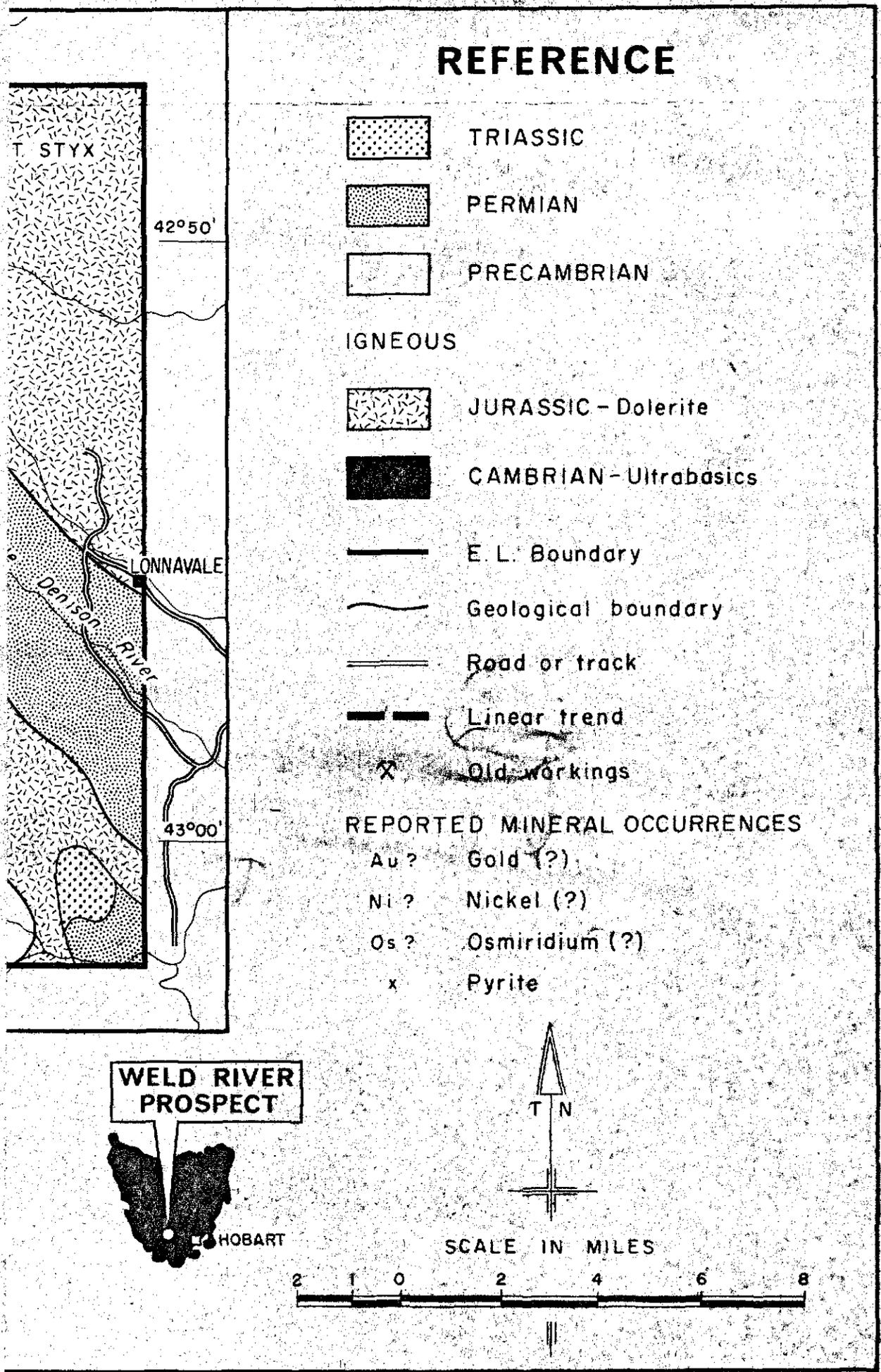
E.L. 3-70

**INLAND EXPLORATIONS N.L.
 GEOLOGICAL MAP OF
 WELD RIVER AREA
 TASMANIA — E.L. 3-70**

Based on the State Geological Map prepared by the Geological Survey of Tasmania and adapted by airphoto interpretation and limited field traverses.

5 cm

Approx 1:174,000



April 1970 Samplings

SOUTH END WELD.

- No. 1. (1) Slate, fine grained, dark grey,
(2) Quartzite.
- No. 2. Andesite, grey with a tinge of green, fine grained.
- No. 3. Illmenite grains.
- No. 4. Andesite, grey with tinge of green, fine grained.
- No. 5. Marble, massive, light green, some white.
- No. 6. (1) Limestone, mixture of grey and white, rather
mixed up.
(2) Marble, silicified, grey, hard.
- No. 7. Quartz sandstone, white, well rounded quartz grains,
dense hard.
- No. 8. Quartzite, grey, very fine grained.
- No. 9. Quartzite, grey, very fine grained, fractured.
- No. 10. Quartzite, black, intruded by white quartz veins,
very fine grained.
- No. 11. Quartzite, quartz intruding siltstone, silicified.
- No. 12. (1) Quartzite, patches of silicified calcereous
material present (fize with acid).
(2) Marble, extremely silicified and hard, grey.
- No. 13. Quartzite, grey, very fine grained, patch of brown chert
present.
- No. 14. Andesite, grey with tinge of green, fine grained.
- No. 15. Andesite, grey with tinge of green, fine grained.
- No. 16. Andesite, grey with tinge of green, fine grained.
- R.W. Basaltic rocks, extremely fine grained.
- - - - -

SOUTH END WELD (Cont.) - 2 -

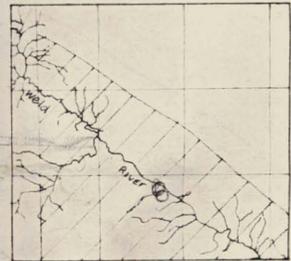
- No. 17. Sinter, siliceous and chert, traces of steel grey metallic particles, iron staining present.
- No. 18. (1) River wash, fine grained black crystals, traces of magnetite present.
(2) Quartzite, grey black, some iron staining present.
- No. 19. Quartzite, grey black intruded by veins of white quartz.
- No. 20. Phyllite, light green, silicified and hardened around the edge, hardened parts contain very fine grains of disseminated pyrite, some limonite coating on the crust present.
- No. 21. (1) River wash, very fine black crystals.
(2) Siliceous Sinter, white, friable.
- No. 22. (1) River wash, very fine black crystals.
(2) Chert, brown patches of white, small inclusions of still grey material, some limonite coating present.
- R.W. Conglomerate, very fine black groundmass, pebbles of quartz and little bit of calcite, numerous blebs of pyrite.
- R.W. (1) Mudstone, fine grained silicified, black, traces of fossils present, corals and shells. Numerous grains of pyrite present, faintly calcereous.
(2) Arderite,
(3) Very weathered and iron stained coarse grained rock.

NORTH WEST END WELD RIVER SAMPLES

20. Mostly fine quartzite to chert. One piece of marble and one piece of vein quartz included.
21. Mostly thin to medium bedded siltstone. Two pieces of a granitic rock and one piece of grey quartz.
22. Conglomerate, pebbles of quartz in fine mudstone ground-mass.
23. As 22.
24. As 22. Some pebbles of chert and limestone.
25. Quartzite, chert and siliceous sinter.
26. Chert.
27. Chert.
28. Mostly fine grained quartzite (highly re-crystallized). One piece of marble.
29. Fine grained crystalline marble, brecciated and re-cemented by quartz.
30. Fine grained greenish marble, brecciated and re-cemented by quartz.
31. Float only siltstone and dolerite.
32. Quartz-feldspar rock, either granulite or fine-medium grained granite.
33. Fine grained greyish marble.
34. Fine grained grey to creamish chert.
35. Fine grained white to grey marble, brecciated, and replaced (?) by crystalline quartz, very fine grained almost agate.
36. Fine grained chert.
37. White to grey marble, fine to coarse grained.
38. Medium grained black crystalline rock with about 2 volume % pyrite, possibly a meta-gabbro highly slickensided.
39. Brecciated mudstone conglomerate.
40. As above, pebbles 90% limestone, 10% chert. Traces of pyrite.
41. Mudstone.
42. Cherty fine grained marble.
43. As above 42.
44. As 38.
45. Mudstone, siltstone and quartzite and quartzite conglomerate.
46. Mudstone.
47. As 46.
48. Granite (?).

49. (1) Sandstone (2) Quartzite conglomerate (3) Mudstone.
50. Quartzite.
51. Mudstone.
52. Dark grey meta-quartzite.
53. Conglomerate.
54. Quartz.
55. (1) Siltstone (2) Sandstone (3) Conglomerate.
56. Conglomerate.
57. Mudstone.
58. Wash.
59. Wash.
60. Chert.
61. Strongly sheared, grey marble.
62. Conglomerate, limestone pebbles.
63. As 62.
64. As 62.
65. As 62.
66. As 62.
67. Cherty grey to cream marble.
68. Conglomerate, limestone pebbles.
69. (1) conglomerate (2) siltstone (3) cherty marble.
70. Cherty marble.
71. Highly sheared, fine grained black marble.
72. Grey cherty marble.
73. Highly cherty light grey marble.
74. Sheared quartzite.
75. (1) quartzite (2) cherty limestone (3) siltstone
(4) sheared and brecciated conglomerate with limestone
pebbles.
76. Serpentinite (?).
77. (1) cherty limestone (2) siltstone (3) conglomerate.
78. (1) quartzite (2) slate.
79. (1) quartzite (2) slate (3) 1 piece sheared limestone.
80. (1) siltstone (2) 1 piece cherty limestone.
81. Chert and quartz.
82. -
83. (1) Conglomerate (2) chert.

- C. 003
84. Quartzite with some pyrite.
 85. Siltstone.
 86. As 85 but with 2 volume % pyrite.
 87. Siltstone.
 88. Siltstone.
 89. White to light grey well sorted sandstone.
 90. Meta-quartzite.
 91. Brecciated slates with much quartz and a little pyrite.
 92. Chert, highly fractured.
 93. Slates.
 94. Grey siltstone with $\frac{1}{2}$ volume % pyrite.
 95. Grey sheared quartzite.
 96. Grey quartzite.
 97. Grey quartzite.
 98. Cherty limestone.
 99. Quartzite.
 100. Quartzite.



AREA INTERPRETED
SCALE: 1:500,000

72

71

70

72N

71N

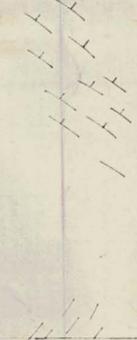
45E

46E

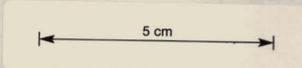
47E

- Legend
- | | | |
|-------------|--|--------------------------|
| Precambrian | | Dominantly Quartzite |
| | | Dominantly Siltstones |
| | | Dominantly Limestone |
| Jurassic | | Dolerite |
| Cambrian | | Andesitic (P) Intrusives |
| | | Ultrabasic Intrusive |
| | | Fault |
| | | Trend Lines |

*Essentially Quartzite
or Conglomerate*



Coordinates Referred to
Tasmania. 1:500,000 Scale
Topographical Map.



899011 71-741

INLAND EXPLORATIONS N.L. 1

Weld River Area
Geological Air Photo Interpretation

009

HALL, RELPH & ASSOCIATES PTY. LTD