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GEOPHOTO MINERALS REPORT 1970/82
MEMORANDUM REPORT ON THE LUTWYCHE PROSPECT,
WOLFRAM CREEK AREA, E.L.6/68,
N.E. TASMANIA

by
I.R. MORTIMORE

TEXINS DEVELOPMENT PTY. LTD.

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GENERAL

The Lutwyche Prospect is situated in the Wolfram Creek area, on a north facing slope approximately ½ mile to the north-west of the Pinnacle.

The prospect consists of a number of small open-cuts opened up on quartz veins carrying varying amounts of wolfram and minor molybdenite. An adit has been driven into the slope from just above the creek bed but has been abandoned before intersecting the mineralised veins at depth.

The veins, which vary in width up to a maximum of 15 inches, are found within rocks belonging to the Mathinna Group of Silurian sedimentaries. They are generally confined to two prominent quartzitic formations which are separated and bounded by low grade metamorphic slates. Where the quartzite/slate contact is visible, the beds appear to dip steeply to the east or are vertical. The strike varies between 330° and 356° , the result of movement along faults which are evident in this area trending north-west - south-east. The quartzites are faulted out near the top of the ridge towards the south. The rocks close to these faults are extensively silicified.

These faults have acted as channels by which mineralising solutions have passed into the Silurian sediments. Here the competent quartzites, in which fracturing during the intrusion of the mineralising granites has resulted in the development of well defined joint sets, have become the host rocks. The veins are seen to follow the joints within the quartzites. The dominant joint sets strike parallel to the bedding planes or close to perpendicular to them. These joint sets are respectively vertical and dipping between 60° and 70° to the north. Veining follows both directions but these veins striking across the bedding are

more extensively developed and carry the bulk of the mineralisation. As stated above, these veins are largely confined to the quartzites and therefore their strike length is restricted to the width of the quartzite beds, i.e. 45 ft. to 50 ft. Isolated veins are seen to swell and pinch over short distances.

Veins are found within the slates but carry only traces of wolfram and molybdenite mineralisation. Numerous veins, varying in size up to 30 inches in width, are found within the slates, siltstones and quartzites in the creek bed to the north and on the slopes further north again but these, also, only carry trace mineralisation.

GEOCHEMISTRY

A comprehensive program of rock-chip sampling was carried out to a grid over the prospect. Fifty-seven samples were taken over an area of approximately 1,400 feet by 600 feet. These included samples from veins within the workings, dump material and small veins outcropping with quartzites. Samples of quartzite rock, with secondary micas and limonite along joint planes or infilling vugs in association with crystalline quartz, were also taken. Samples of this type at the Pinnacle Tin Prospect and Great Pyramid Mine are known to carry cassiterite in association with limonite and secondary micas. Isolated "floaters" were taken where their derivation could be ascertained and outcrop was limited.

The samples were analysed for molybdenum, bismuth, tungsten and tin.

Samples taken from the workings and other outcrops assayed up to 5.43% tungsten, 0.172% bismuth, 0.041% molybdenum and 0.38% tin. Dump material and "floaters" assayed up to 6.8% tungsten, 0.143% molybdenum and 0.128% bismuth.

The bismuth minerals are not apparent in hand specimens but must be closely associated with the wolfram or molybdenite.

CONCLUSIONS

High assays were obtained over a strike length of nearly 900 feet from vein material within the more easterly of the two quartzitic formations. Lower, but still significant, values were obtained from the silicified rock about the fault to the south and the second quartzitic formation. The width of these formations ranges between 45 feet and 50 feet.

The surface dimensions of the prospect are such as to indicate that a potential tonnage exists to warrant exploitation as a moderate tonnage on a low grade Sn-W-Bi-Mo deposit. The main quartzite formation would yield around 250,000 tons per 100 feet depth worked.

Further work should be designed to determine whether the veins are present in sufficient density and of sufficient mineral content to make such exploitation a viable proposition.

Follow-up work should include detailed mapping of the extent of the quartzitic type rocks and a closer examination of the veins to the north and north-east.

From information gained during this work, diamond drill sites should be selected for subsurface investigation of the characteristics of the mineralisation.

At this stage suggested sites would be:-

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D.D.H.1 depressed at 45° on bearing 158° from just north of L9.

D.D.H.2 depressed at 45° on bearing 158° from point just NNW of L26.

D.D.H.3 depressed at 45° on bearing 168° from just north of L37.

D.D.H.4 depressed at 45° on bearing 168° from point just NNW of L47.

I.R. Mortimore,
December, 1970.

Appendix: Lab. Sheets 415/2, 415/3.

Map: Drawing No. 1/139.

GEOCHEMICAL LABORATORY REPORT 950006

FIELD SHEET No. 001419 PROJECT No. EL. 6/68 - LUTWYCHE, WOLFRAM CK. AREA

LAB. SHEET No. 415/2 SAMPLE TYPE ROCK DATE 21st September, 1970

SAMPLE No.	LAB. No.	Mo ppm	Bi ppm	W ppm	Sn %
L 1	70-J-282	10	10	BLD	BLD
L 2	70-J-283	20	25	BLD	BLD
L 3	70-J-284	15	320	BLD	BLD
L 4	70-J-285	80	50	BLD	BLD
L 5	70-J-286	15	35	BLD	BLD
L 6D	70-J-287	15	1280	6.80%	BLD
L 7D	70-J-288	10	260	2.98%	BLD
L 8	70-J-289	10	415	3.32%	BLD
L 9	70-J-290	30	335	1400	BLD
L 10	70-J-291	10	160	2.99%	BLD
L 11	70-J-292	50	50	BLD	BLD
L 12D	70-J-293	10	55	1.98%	BLD
L 13D	70-J-294	20	105	9700	BLD
L 14	70-J-295	20	480	8000	BLD
L 15	70-J-296	10	55	2.65%	BLD
L 16	70-J-297	75	115	BLD	BLD
L 17D	70-J-298	20	330	6000	BLD
L 18D	70-J-299	10	1200	1.60%	BLD
L 19	70-J-300	20	145	5.43%	BLD
L 20	70-J-301	60	425	4400	BLD
L 21	70-J-302	25	85	1.71%	BLD
L 22	70-J-303	75	315	BLD	BLD
L 23	70-J-304	15	35	BLD	BLD
L 24D	70-J-305	10	115	6200	BLD
L 25D	70-J-306	1450	780	4100	BLD
L 26	70-J-307	20	30	BLD	BLD
L 27	70-J-308	10	130	3900	BLD
L 28	70-J-309	190	1550	6400	BLD
L 29	70-J-310	215	300	1.36%	BLD
L 30	70-J-311	35	220	BLD	BLD
L 31	70-J-312	410	1720	BLD	BLD
L 32	70-J-313	15	45	BLD	BLD
L 33	70-J-314	10	90	BLD	BLD
L 34	70-J-315	15	60	BLD	BLD
L 35	70-J-316	30	15	5150	BLD
L 36	70-J-317	175	15	BLD	BLD
L 37	70-J-318	15	750	8200	BLD
L 38D	70-J-319	10	45	3.41%	BLD
L 39	70-J-320	15	460	600	0.12%
L 40D	70-J-321	BLD	210	1.31%	BLD
L 41	70-J-322	40	1480	8600	BLD
L 42	70-J-323	30	850	6800	0.38%
L 43	70-J-324	45	800	5250	BLD
L 44	70-J-325	85	30	BLD	BLD
L 45	70-J-326	10	700	4700	BLD
L 46	70-J-327	15	45	5800	BLD

METHODS:

This laboratory is registered by the National Association of Testing Authorities, Australia. The tests reported herein have been performed in accordance with its terms of registration.

Mo, Bi by GRC No. 2

W by GRC No. 4A

Sn by GRC No. 6A

B.L.D. = Below limit of Detection



Chief Chemist

Ray W. Zerkow

GEOCHEMICAL LABORATORY REPORT 950007

FIELD SHEET No. 001419/20 PROJECT No. EL. 6/68 - LUTWICHE PROSPECT/WOLFRAM CK.

LAB. SHEET No. 415/3 SAMPLE TYPE: ROCK DATE 21st September, 1970.

SAMPLE No.	LAB. No.	Mo ppm	Bi ppm	W ppm	Sn %				
L 47	70-J-328	10	105	1.02%	BLD				
L 48	70-J-329	110	10	BLD	BLD				
L 49	70-J-330	15	5	BLD	BLD				
L 50	70-J-331	10	335	6600	BLD				
L 51	70-J-332	15	20	8800	BLD				
L 52	70-J-333	BLD	10	BLD	BLD				
L 53F	70-J-334	10	5	2100	BLD				
L 54	70-J-335	BLD	5	BLD	BLD				
L 55	70-J-336	25	270	750	BLD				
L 56D	70-J-337	20	155	1.38%	BLD				
L 57D	70-J-338	10	75	2.13%	BLD				

METHODS:



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Chief Chemist

Ray W. Gerling



LEGEND

- OPEN-CUT
- ADIT
- PROSPECTING TRENCH
- DUMP
- ROCK SAMPLE POINT
- JOINTS - STRIKE AND DIP
- BEDDINGS - VERTICAL
- ESTABLISHED FAULT - POSITION APPROXIMATE
- PROBABLE FAULT
- VEIN
- WATER COURSE
- QUARTZ

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TEXAS INSTRUMENTS INCORPORATED SCIENCE SERVICES DIVISION		BRISBANE AUSTRALIA	
GEOPHOTO RESOURCES CONSULTANTS		LUTWYCHE GRID	
DRAWN TRACED B PACEY SEPT. 70 CHECKED GEOLOGIST APPROVED	TEXINS DEVELOPMENT PTY. LTD. E.L. 6/68 NORTH-EAST TASMANIA	LUTWYCHE GRID GEOLOGIC 007 MAP	
SCALE 1" = 50'		PROJECT	DRAWING NO. 1/139