

DRILLING TARGET:- Quartz lode in porphyry beneath All Nations Mine .												
REMARKS:- Two veins intersected at 142.66-142.83m and 146.35-146.61m.												
SURVEY DATA			ASSAY DATA									
DEPTH metres	Bearing mag.	Inclin. degs	SAMPLE No.	FROM metres	TO metres	RECOVERY		ASSAY RESULTS				
						metres	%					
0	004	53										
43		55										
90	011	57										
155		60										
205		63										

GEOLOGICAL LOG

Logged by:- P. L. F. Collins

FROM metres	TO metres	RECOVERY		DESCRIPTION	SECTION	
		metres	%		Core	Sample
0.00	7.00	2.80	40	Pale grey-white quartz sandstone, grit and fine pebble conglomerate with minor shale horizons. Broken core.		
7.00	9.50	2.35	94	Fine pebble conglomerate and coarse grit with minor quartz sandstone. Pebbles of quartz, sandstone and siltstone up to 4mm.		
9.50	16.05	5.95	91	Massive, poorly sorted quartz sandstone and siliceous grit with quartz, quartzite and siltstone pebbles up to 5mm - well rounded. Broken core at 9.5-11.5m. Quartz veins up to 5mm thick with wolframite at 12.00m, 14.1m and 14.25m.		
16.05	16.75	0.70	100	White-cream siliceous siltstone.		
16.75	18.45	1.50	88	Light grey-white quartz sandstone and siliceous grit.		
18.45	28.00	8.75	92	Light grey/green siliceous siltstone and fine sandstone with minor grit horizons. Faults(?) at 20.60, 23.3 and 25.2m. Bedding at 27m with BCA=45°.		
28.00	31.60	3.60	100	White-light grey quartz sandstone with cream shale wisps.		
31.60	32.45	0.85	100	Light green/grey siltstone. Bedding at 32.45m, BCA=60°.		

Continued over:-

DEPARTMENT OF MINES—TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No.:- AN3	MAP SHEET No. 37	DISTRICT SHEFFIELD	LOCATION OF SITE:-
All Nations Mine, Moina (92m, bearing 295°M from the shaft)			
R.L. OF SITE:-		SITE SURVEY ON MAP No.:	CORE SIZE:- NQ
BEARING OF HOLE:- 184°M		AIR PHOTO No.:-	COMMENCED:- 7/8/80
INCLINATION OF HOLE:- 53°N		DRILL:- F20C	COMPLETED:- 4/11/80
CO-ORDS OF SITE:- 422000 E 540300 N.		DRILLER:- G. Baker	FINAL DEPTH (m):- 205.15

Core held M91

FROM metres	TO metres	RECOVERY		DESCRIPTION	SECTION	
		metres	%		Core	Sample
32.45	44.70	12.00	97	Light grey quartz sandstone with interbedded cream-brown siltstone at 37.5-38.0m and 39.0-39.5m. Quartz veins (up to 5mm thick) with wolframite at 34.30m, 40.55m, 42.55m; and quartz vein (10mm VCA=50°) at 42.25m. Faults (?) at 38.9m and 41.6m.		
44.70	47.55	2.80	98	Cream-pale brown siltstone. Faults (?) at 45.65m, 47.55m.		
47.55	50.50	2.90	90	Grey, quartz sandstone with minor poorly sorted pebble conglomerate (pebbles up to 10mm). Quartz veins (up to 5mm thick) at 47.85m and 48.35m.		
50.50	54.10	3.50	97	"Ghost" conglomerate of pale grey-white quartzite pebbles (up to 30mm) in a pale-grey siliceous matrix. Slight pink colour of the matrix in places. Quartz vein (3mm) with wolframite at 51.60m.		
54.10	54.90	0.80	100	Massive, light grey, quartz sandstone.		
54.90	57.05	2.00	93	Light grey-white "ghost" conglomerate composed of quartzite pebbles (up to 30mm) in a siliceous matrix. Interbedded quartz sandstone (BCA=28°) at 56.85m. Quartz vein (5-10mm) with wolframite at 56.40m		
57.05	61.35	4.30	100	Conglomerate composed of white and pink quartzite pebbles (up to 50mm) in a red/grey hematitic and siliceous matrix; and interbedded red-dark grey hematitic quartz sandstone at 57.70-57.85m, 58.65-58.75m and 58.85-59.20m. Bedding in sandstone at 57.75m with BCA=25°. Pebbles grade to larger down the hole. Rare hematitic pebbles. Fault at 60.2-60.6m.		
61.35	66.65	5.15	100	Grey, coarse pebble conglomerate (pebbles up to 80mm) with a partially hematitic matrix. Interbedded grey quartz sandstone at 63.35-63.60m with BCA=32°. Faults at 64.0m and 66.4-66.6m. At <u>66.65m</u> is an irregular contact between conglomerate and porphyry with siltstone, quartzite and decomposed <small>continued over</small>		

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY		ASSAY RESULTS									
			metres	%										

FROM metres	TO metres	RECOVERY		DESCRIPTION	SECTION	
		metres	%		Core	Sample
66.65	76.65	10.00	100	porphyry pebbles overlying massive porphyry (BCA=40°).		
76.65	77.15	0.50	100	Massive, grey/green, medium grained equigranular pyroclastic rock with disseminated pale grey volcanic (?) fragments and minor quartz phenocrysts. Quartz veins with wolframite at 71.83m (3mm thick), 73.80m (3mm), 75.65 (6mm) and 75.93 (20mm, VCA=75°).		
77.15	121.50	43.25	97	Grey, aphanitic lava (?) or intrusive (?) rock. Fault at 77.15m.		
				Grey-green, fine-medium grained quartz-feldspar-phyric tuff, with units of coarse agglomerate composed of pink-grey aphanitic fragments in a chloritic matrix (e.g. 77.5-79.5m). Brown iron staining of the porphyry adjacent to joints. Irregular red hematitic veining and a red-pink colouration in parts of the porphyry due to disseminated hematite. Siliceous fault zones at 95.75-96.15m and 96.80-97.25m; and faults at 99.95-100.15m, 101.65m, 116.0-116.4m, 119.95m. Quartz veins with wolframite at 102.63m, 20mm thick, VCA=75° 108.0m, 8mm 114.55-114.80m, 5mm 117.55, 50mm, VCA=40° Quartz veins with topaz muscovite and feldspar at 103.95m (2-3mm), 104.25m (5mm) and 104.38m (10mm). Quartz-topaz veins with wolframite at:- 114.35m, 10mm, VCA=10° 114.45m, 4mm, VCA=80° 119.45m, 3mm, VCA=20° Irregular patches of hematite (?) and tourmaline alteration of the porphyry at 107.2m, 108.10-108.45m, 115.60m.		
121.50	142.66	20.60	97	Fine-medium grained quartz-feldspar-phyric tuff with lithic and volcanic fragments. Extensively altered adjacent to numerous quartz veins bearing wolframite and molybdenite. Major veins at:-		

Continued over

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY		ASSAY RESULTS																
			metres	%																	

FROM metres	TO metres	RECOVERY		DESCRIPTION	SECTION	
		metres	%		Core	Sample
				121.45m, 8mm thick, VCA=30° 124.08m, 15mm " , " 70° 124.65m, 15mm " , " 60° 126.85m, 12mm " , " 75° 128.80m, 5mm " , " 60° 129.25m, 8mm " , " 60° 134.20m, 8mm " , " 50° 141.45m, 14mm " , " 55° Fault at 132.80m, and siliceous faults with wolframite at 139.15-139.45m and 140.05-140.30m.		
142.66	142.83	0.17	100	Quartz Vein with sericite, purple flourite and molybdenite. Quartz and tourmaline alteration of the porphyry between 142.48-143.05m. VCA=30° at 142.66m and 30° at 142.83m. Vein true thickness is 95mm.		
142.83	146.35	3.52	100	Altered and veined porphyry as above. Major veins at 145.45m (16mm, 50°), 145.55 (12mm, 45°) and 145.70m (5-10mm, 35°).		
146.35	146.61	0.26	100	Quartz Vein with sericite and molybdenite. Alteration of the porphyry between 145.90- 147.35m. VCA=45° at 146.35m and 50° at 146.61m. Vein true thickness is 200mm.		
146.61	169.00	22.39	100	Quartz-feldspar porphyry (tuff), extensively altered adjacent to numerous quartz veins and quartz-topaz veins bearing wolframite and molybdenite. Major veins occur at:- 146.93m, 5mm thick, VCA=40° 148.55, 8mm " , " 45° 148.84m, 25mm " , " 45° 150.08m, 5mm " , " 25° 150.50m, 45mm " , " 40° 150.94m, 8mm " , " 75° 151.15m, 3mm " , " 15° 153.80m, 10mm " , " 30° 156.60m, 10mm " , " 40° 158.20m, 5mm " , " 45° 158.80m, 5mm " , " 45° 159.05m, 3-5 mm " , " 80° 162.15m, 33mm " , " 40° 162.93m, 3mm " , " 45° 166.17m, 5mm " , " 50°		

Continued over

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY		ASSAY RESULTS																
			metres	%																	

FROM metres	TO metres	RECOVERY		DESCRIPTION	SECTION	
		metres	%		Core	Sample
				166.28m, 20mm thick, VCA=60° 166.31m, 5mm " , " 60° 166.80m, 20mm " , " 85° 167.72m, 4mm " , " 75° 167.97m, 3-5mm " , " 65° 168.42m, 6-12mm " , " 70° 168.53m, 25mm " , " 70° 168.63m, 3mm " , " 80° 168.65m, 5mm " , " 80° At 158.50-158.60 is a sharn-type alteration of the porphyry with fluorite, magnetite, siderite and pyrite. Fault at 149.90-150.05m.		
169.00	190.35	21.35	100	Quartz-feldspar porphyry as previous but with less veins. At 179m are short stringers of magnetite and chlorite. Faults at 173.90-174.15m, 183.40-183.50m and 190.10-190.35m. Quartz veins with molybdenite at:- 170.75m, 10mm thick, VCA=45° 171.30m, 8mm " , " 25° 171.65m, 7mm " , " 10° 177.68m, 5mm " , " 85° 178.30m, 5mm " , " 25° 182.85m, 4mm " , " 45° 183.05m, 5mm " , " 70° 183.30m, 20mm " , " 65° 184.10m, 5mm " , " 50° 185.80m, 3mm " , " 50° 186.20m, 8mm " , " 40° 186.40m, 5mm " , " 50° 188.65m, 3mm " , " 45°		
190.35	194.50	4.05	98	Altered and veined porphyry, with irregular quartz-chlorite-(magnetite) veins. Quartz veins with molybdenite at :- 190.45m, 6mm thick, VCA=50° 190.85m, 5mm " , " 60° 191.25m, 1-10mm " , " 80° 192.80m, 45mm " , " 40° 194.00m, 3-5mm " , " 20° Quartz vein at 192.80m also contains late cassiterite occurring on quartz crystals in vugs.		

Continued over

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY		ASSAY RESULTS										
			metres	%											

FROM metres	TO metres	RECOVERY		DESCRIPTION	SECTION	
		metres	%		Core	Sample
194.50	205.15	10.55	99	<p>Grey quartz-feldspar porphyry with quartz veins bearing molybdenite at 196.67m (3mm, 45°), 200.43m (7mm, 55°) and 204.40m (3mm, 45°); and bands of altered porphyry with magnetite at 203.60-203.70m and 204.10m.</p> <p>END OF HOLE 205.15m</p>		

Continued over

ASSAY DATA

SAMPLE No.	FROM metres	TO metres	RECOVERY		ASSAY RESULTS															
			metres	%																