

DIAMOND DRILL HOLE NO. 320

<u>LOCATION:</u>	No. 3 Orebody
<u>CO-ORDINATES:</u>	100,498.22E: 110,199.83N
<u>R.L.:</u>	386.67 Feet
<u>DATE COMMENCED:</u>	25th May, 1970.
<u>DATE COMPLETED:</u>	17th June, 1970.
<u>FINAL DEPTH:</u>	857 Feet
<u>DATE SURVEYED:</u>	30th April, 1970.
<u>LOGGED BY:</u>	P. Le Messurier.

SAMPLE NO.	DISTANCE		MFT IN SAMPLED	LENS IN REC'D.	SALES	
	FROM	TO			WO <sub>3</sub>	Mo
	0	10	10	-		
	10	52	42	32		
	52	76	24	23		
	76	141	65	63		
	141	159	18	18		
	159	198	29	28		
	198	200	2	2		
A2898	200	202	2	2	0.05	(0.01)
A2899	202	204	2	2	0.05	0.013
A2900	204	206	2	2	0.49	(0.01)
A2901	206	208	2	2	0.10	(0.01)
A2902	208	209	1	1	0.08	0.010
A2903	209	210	1	1	0.76	0.023
A2904	210	212	2	2	0.72	0.024
A2905	212	214	2	2	0.59	0.040
A2906	214	216	2	2	0.44	0.017
A2907	216	218	2	2	2.2	0.046
A2908	218	220	2	2	0.08	(0.01)
A2909	220	222	2	2	0.08	0.015
	222	224	2	2		

No Core

QUARTZITE  
10 - 198

PYROXENE HORNFELS  
198 - 204

SKARN 204 - 218  
(A Lens)

BIOTITE HORNFELS  
218 - 235.5

No Core, surface soil, clay and very weathered rock.

QUARTZITE, strongly weathered but still massive, well developed shaley banding in part, variable red and yellow ironstaining.

QUARTZITE, very clayey and ironstained in part but generally maintaining massive form, some shaley sections. A number of coarse grained quartz veins with pyrite.

QUARTZITE, fine grained, mid to dark grey, irregular finer shaley bands and fragments? Massive uniform mineralogy and texture, a few thin pyritic veinlets and pyrite on oblique joints.

QUARTZITE, medium grained granular appearance, light grey, some darker fine patches. Irregular chlorite-epidote alteration associated with fractures.

QUARTZITE, fine grained dark grey shaley, numerous pyrite veinlets and also thin bands on apparent bedding.

PYROXENE HORNFELS, Biotite Hornfels interbedded and intermixed, general bedding at about 40° to L.C.A. some irregular quartz and calcite blebs and lenticles, often with associated sulphide. Upper contact gradational and conformable.

SKARN, medium and coarse grained garnet pyroxene about equal percentage, much silica with sulphide coarse grained scheelite throughout. Very siliceous aplite 208 - 209'.

BIOTITE HORNFELS-PYROXENE HORNFELS, interbedded and intermixed.

SAMPLE No.	FROM	TO	WIDTH SAMPLED	LENGTH REC'D.	WO <sub>3</sub>	Mo	DESCRIPTION	FACTURING
	224	235.5	11.5	11.5			<u>BIOTITE HORNFELS</u> , massive fine grained very siliceous and grades to quartzite in part.	
	235.5	248	12.5	12.5			<u>QUARTZITE</u> , very fine and highly micaceous with much biotite and muscovite, grades to biotite hornfels.	
	248	265	17	17			<u>BIOTITE HORNFELS</u> 248 - 283, fine grained massive siliceous Pegmatite band - 258.5 - 259.	
	265	267	2	2			<u>GRANITE</u> , medium grained variable mineralogy.	
	267	283	16	16			<u>BIOTITE HORNFELS</u> , with many irregular pyroxene hornfels bands, some siliceous zones. Aplite 270.5 - 271.5	
	283	293	10	10			<u>BIOTITE/PYROXENE HORNFELS</u> , medium grained quite granular texture - very similar to B Meta Volcanics.	
	293	308	15	15			<u>GRANITE</u> , very variable grainsize and mineralogy, some porphyritic bands, some biotite rich bands, zones of epidote alteration, lower contact shows considerable interaction and mobility.	
	308	369	61	60			<u>B META VOLCANICS</u> , fine to medium grained granular rock of biotite/pyroxene hornfels composition with strong remnant volcanic texture with eroded feldspar liths. Many calcite and chloritic veinlets, some pyrite on joints and as thin veinlets.	
	369	376	7	7			<u>PYROXENE HORNFELS</u> , fine grained in part, similar to above volcanics in texture.	
	376	380	4	4			<u>BIOTITE HORNFELS</u> , ranging from massive to thin banded very minor pyroxene.	
A3081	380	382	2	2	0.09	(0.01	<u>SKARN</u>	
A3082	382	384	2	2	0.23	(0.01	B Lens	
A3083	384	386	2	2	1.80	0.029		
A3084	386	388	2	2	0.61	0.012		
A3085	388	390	2	2	0.53	0.010		
A3086	390	392	2	2	1.41	0.019		

PYROXENE SKARN, very fine grained garnet minor constituent very intermixed and gradational banding. A few coarser patches disseminated scheelite with percentage increasing with grainsize.

No.	PC	SA	PLD	SEC D.	WO <sub>3</sub>	Mo
A3087	392	394	2	2	0.04	(0.01)
A3088	394	396	2	2	0.02	(0.01)
	396	449	53	53		
	449	452	3	3		
	452	474	22	20		
	474	488	14	14		
	488	514	26	26		
A3061	514	522	.8			
A3089	522	524	2		0.09	(0.01)
A3090	524	526	2		0.57	(0.01)
A3091	526	528	2		0.43	(0.01)
A3092	528	530	2	2	0.10	(0.01)
A 3093	530	532	2	2	0.08	(0.01)
A3094	532	534	2	2	0.06	(0.01)
A3095	534	536	2	2	0.07	(0.01)
A3109	536	538	2	2	0.14	(0.01)
A3110	538	540	2	2	0.07	(0.01)
A3111	540	542	2	2	0.05	(0.01)
A3112	542	544	2	2	0.04	(0.01)
A3113	544	546	2	2	0.04	(0.01)
A3114	546	548	2	2	0.06	(0.01)
A3115	548	550	2	2	0.16	(0.01)
	550	552.5	2.5	2.5	0.28	0.010
A3116	552.5	556	3.5	3.5	0.06	(0.01)
A3117	556	560	4	4	0.06	(0.01)
A3118	560	562	2	2	0.08	0.019
A3119	562	563	1	1	0.05	(0.01)
A3120	563	565	2	2	0.47	0.010
A3121	565	567	2	2	0.37	0.034
A3122	567	569	2	2	0.50	0.035
A3123	569	571	2	2	1.99	0.040
A3124	571	573	2	2	0.55	0.019
A3125	573	575	2	2	1.07	0.039

LIMESTONE  
392 - 449

LIMESTONE, recrystallised in part, well banded with dark chloritic and micaceous bands, irregular calcite and chlorite veins.

PYROXENE HORNFELS

PYROXENE HORNFELS, highly altered limestone with much pyroxene and minor biotite.

BIOTITE HORNFELS  
452 - 488

BIOTITE HORNFELS, poorly banded with some pyroxene rich bands, many chlorite and calcite bands and veins.

BIOTITE HORNFELS, siliceous, fine grained biotite in irregular bands and spots.

BIOTITE PYROXENE HORNFELS

BIOTITE PYROXENE HORNFELS, irregular interbeds of pyroxene and biotite rich section, some irregular calcite blebs.

PYROXENE GARNET HORNFELS  
514 - 552.5

PYROXENE GARNET HORNFELS, fine pyroxene rich siliceous rock with minor fine garnet with many irregular blebs ovoids and fragments of calcite with garnet and pyroxene replacement and reaction rims grades very gradually to skarn by the reduction in number of ovoids and slight increase in grain size, disseminated scheelite, more abundant with coarse garnet and in some ovoids.

BIOTITE PYROXENE HORNFELS  
552.5 - 563

BIOTITE PYROXENE HORNFELS, irregularly intermixed and some garnet and calcite-minor ovoids and scheelite.

SKARN  
C Lens

PYROXENE SKARN, fine to medium grained pyroxene rich skarn-garnet very fine grained calcite and pyroxene crystalline intergrowths. Abundant scheelite throughout with minor molybdenite and pyrite.

NO.	FROM	TO	SAMPLE D	REC D	WO <sub>3</sub>	Mo
A3126	575	577	2	2	1.01	0.041
A3127	577	579	2	2	0.92	0.035
A3128	579	581	2	2	0.88	0.052
A3129	581	583	2	2	0.78	0.035
A3130	583	585	2	2	0.97	0.032
A3131	585	586.2	1.2	1.2	0.77	0.020
A3132	586.2	590	3.8	3.8	0.02	(0.01)
A3133	590	593	3	3	0.03	(0.01)
A3134	593	596.7	3.7	3.7	0.01	(0.01)
A3135	596.7	599	2.3	2.3	0.62	0.023
A3136	599	601	2	2	0.75	0.037
A3137	601	603	2	2	0.71	0.037
A3138	603	605	2	2	0.55	0.026
A3139	605	607	2	2	0.32	0.010
A3140	607	608	1	1	0.34	(0.01)
A3141	608	610	2	2	0.06	(0.01)
A3142	610	612	2	2	0.06	(0.01)
	618.7	622	3.3	3.3		
	622	628	6	6		
	628	632.5	4.5	4.5		
	632.5	663.3	30.8	30		
A3143	663.7	665.5	1.8	1.8	2.54	0.063
A3144	665.5	667	1.5	1.5	0.08	(0.01)
A3145	667	669	2	2	1.78	0.031
A3146	669	671	2	2	2.52	0.054

LIMESTONE

LIMESTONE, finely recrystallised well banded.

PYROXENE SKARN, generally as similar unit above, abundant scheelite but no molybdenite.

BANDED HORNFELS

BANDED PYROXENE, CALCITE & BIOTITE HORNFELS, generally pyroxene rich, fine grain, garnet common in upper 3 feet where scheelite plentiful.

GRANITE

GRANITE, fine to medium grainsize with very cloudy texture with abundant evidence of assimilation and pyroxene common. Margins clear and straight.

PYROXENE HORNFELS, fine grained minor biotite bands.

GRANITE

GRANITE, very variable texture and mineralogy-evidence of assimilation or granitisation. Molybdenite and pyrite fairly common, margins diffuse.

BANDED HORNFELS, Calcite, Biotite, Garnet and Pyroxene Hornfels, irregularly interbedded in units varying from less than 1" to 2 to 3 feet. Very variable and irregular contacts and diffuse boundaries. Many contortions and mobile features. Minor scheelite in the graniterich bands. Granite band 638 - 640, very variable and diffuse margins.

BANDED HORNFELS, chiefly garnet and calcite hornfels with lesser biotite and pyroxene hornfels, abundant scheelite in garnet bands.

No.	FeO	SA	SEC	WO <sub>3</sub>	Mo
A3147	671	672.5	1.5	1.5	0.14 0.018
A3148	672.5	674	1.5	1.5	1.97 0.050
A 3149	674	675	1	1	0.14 0.012
A3150	675	676	1	1	1.69 0.043
A3151	676	677.5	1.5	1.5	0.18 (0.01
A3152	677.5	679.5	2	2	0.43 0.011
A3153	679.5	681	1.5	1.5	0.64 0.013
A 3154	681	683	2	2	0.09 0.022
A3155	683	685	2	2	0.26 (0.01
A3156	685	686	1	1	4.8 0.086
A3157	686	688	2	2	2.4 0.049
A3158	688	690	2	2	3.0 (0.01
A3159	690	692	2	2	1.19 0.033
A3160	692	693.7	1.7	1.7	0.46 0.020
A3161	693.7	695	1.3	1.3	0.19 (0.01
A3162	695	696	1	1	1.84 0.042
A3163	696	698	2	2	0.06 (0.01
A3164	698	700	2	2	0.05 (0.01
A3165	700	702	2	2	0.06 (0.01
A3166	702	705.3	3.3	3.3	0.06 (0.01
A3167	705.3	707	1.7	1.7	5.2 0.084
A3168	707	709	2	2	4.6 0.076
A3169	709	710	1	1	2.20 (0.01
A3170	710	713	3	3	0.19 0.011
A3171	713	716	3	3	0.46 0.015
A3172	716	718	2	2	0.51 0.017
A3173	718	720	2	2	0.38 0.010
A3174	720	722	2	2	0.49 0.016
A3175	722	724	2	2	0.07 0.014
A3176	724	725.5	1.5	1.5	0.16 0.010
A3177	725.5	726.5	1	1	0.12 (0.01
A3178	726.5	728.5	2	2	0.13 0.013
A3179	728.5	730.5	2	2	0.32 0.021
A3180	730.5	731.5	1	1	1.34 0.032
A3181	731.5	733.5	2	2	0.06 (0.01
A3182	733.5	734.5	1	1	1.62 0.030
A3183	734.5	736.5	2	2	0.07 (0.01
A3184	736.5	738.5	2	2	0.18 0.011
A3185	738.5	740	1.5	1.5	1.52 0.048
A3186	740	742	2	2	0.07 0.010
A3187	742	744	2	2	0.07 0.019
	744	752	8	8	

Granitoid texture.

Magnetite prominent

Massive Magnetite & silica, granular texture.

Magnetite in granitised textured bands, becoming massive in part, some pyrite, normal calcite pyroxene garnet banding still present.

Granitised magnetite rich band, M  
Massive magnetite

Numerous bands with granitised texture and abundant magnetite, considerable pyroxene. Appears to follow previous carbonate bands. Contact with underlying granite shows some banding but generally clear. No real evidence of assimilation.

SAMPLE No.	DISTANCE		LENGTH SAMPLED	LENGTH REC'D.	ASSAYS		UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
	FROM	TO			WO <sub>3</sub>	Mo			
	752	857	105	104					

GRANITE, massive medium to coarse grained with grain size generally increasing away from contact in upper 20 feet. Some minor biotite rich bands near contact, a few aplite veins. Bulk of unit fairly consistent porphyritic orthoclase common. Some clayey and ironstained joints.