DIAMOND DRILL HOLE NO. 321

LOCATION:	No. 3 Orebody
CO-ORDINATES:	100,602.4E : 110,201.8N.
R.L.:	395.9'
DATE COMMENCED:	19th June, 1970.
DATE COMPLETED:	7th July, 1970.
FINAL DEPTH:	868 Feet
DATE SURVEYED:	
LOGGED BY:	P. Le Messurier

DRILL HOLE No. 321

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo
	0	10	0	0		
	10	20	10	4		
	29	58	19	19		
	58	94	36	36		
	94	131.5	37.5	37		
	131.5	137	5.5	5.5		
	137	182	45	44.5		
	182	204	22	22		
	204	346	142	141.5		

UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
No Core	No Core - Surface soil, sand, clay, weathered rock.	
QUARTZITE 10' - 647'	QUARTZITE, fine grained, very micaceous, very spotted appearance due to mica blebs, some minor fine banding. Ironstained throughout with numerous clayey and limonitic joints.	
	QUARTZITE, fine micaceous, part blotchy with micaceous blebs, part thinly banded and partly shaley. Ironstaining decreasing down unit, number of open joints also decreases.	
	QUARTZITE, fine light grey, generally blotchy but with a few shaley bands, very micaceous, thin carbonate veins and joint fillings with some pyrite.	
	QUARTZITE, fine micaceous generally as above, but with greater abundance of dark fine shaley bands and partings with moderate pyrite as veins and along bedding, some disseminated. Pyrite generally associated with shaley bands.	
	QUARTZITE, fine generally very tierbed texture showing disturbance and mobility, some pyroxene and ? epidote alteration. Pyrite moderately plentiful and in generally larger aggregates.	
	QUARTZITE, mid-grey generally less uhiform in both texture and composition, shaley bands irregular and lighter alteration zones. Moderate pyrite in veins and bedding, some very fine disseminations.	
	QUARTZITE, very shaley, dark finer and generally more pyritic that previous units. Some very light coloured siliceous bands with aplitic texture. One band at186'shows mixed mineral assemblage of quartz, pyroxene, feldspar and well developed books and rosettes of mica.	
	QUARTZITE, lighter and colour medium and fine grained granular texture. A number of	

GEOPEKO LIMITED, KING ISLAND.

DIAMOND DRILL LOG

DRILL HOLE No. 321

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH RECD.	ASSAYS WO_3	ASSAYS Mo	TIME	GEOLOGICAL DESCRIPTION	FRACTURING
								mobile and retextured bands, some achieving "aplitic" texture and mineral assemblage but many only coarse grain and better aggregation of mica, boundaries of most "aplitic" bands vary from completely gradational to quite sharp. Major aplitic bands 243.5 to 248, 279 to 282, 310.5 to 324 and 327 to 332. From 282 to 294 unit very fractured and jointed with marked increase in percentage of chlorite and pyrite.	
	346	444	98					QUARTZITE, fine to medium granular, abundant mica, minor irregular shaley bands generally with prominent pyrite. Several small bands showing textural reconstitution but no "aplitic" bands.	
	444	502	58	58				QUARTZITE, light grey granular varied grainsize fine to coarse abundant mica, numerous bands showing textural reconstitution and grainsize enlargement. Very turbid aplitic siliceous zone with gradational edges and rafts of quartzite etc. 468 to 471 several smaller "Aplites".	
	502	578	76	76				QUARTZITE, fine grained numerous shaley bands, pyrite associated with finest sections as irregular blotchy veinlets.	
	578	596	18	18				QUARTZITE, medium grained granular very micaceous a few fine shaley bands with associated pyrite.	
	596	619	23	23				QUARTZITE, very mixed shaley and granular with some sections grading into white quartz vein form. Many zones of cloudy floculant quartz. Pyrite relatively abundant and increasing down unit.	
	619	631	12	11.5			FAULT ZONE	BRECCIA, irregular fragments of quartzite, many sheared and attenuated in a chloritic siliceous groundmass. Strong epidotisation and silicification in part. Many chloritic and serpentinised shear planes, irregular quartz calcite veins and shear fillings.	

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
	631	647	16	16				QUARTZITE, very variable and similar to unit immediately above fault with floculent cloudy quartz, some irregular Fe/Mg rich zones, a few quartz/calcite veins.	
	647	684	37	37			PYROXENE HORNFELS 647 - 684	PYROXENE HORNFELS, a fine generally siliceous rock with abundant pyroxene rich zone and minor biotite rich zones. Pyroxene variable in distribution or probably also in composition. This section shows major disruption with bands intricately contorted and frequent zones of autobrecciation, strong evidence of sheering and attenuation in part. Some sections of unit show accretionary development of silica blebs. Very rare specks of scheelite, generally with blue fluorescence.	
	684	716	32	31			IOTITE HORNFELS 84 - 716	BIOTITE HORNFELS, a fine grained thinly banded but massive rock generally siliceous with abundant biotite. The biotite generally in bands and sometimes disseminated in matrix. Some minor pyroxene bands. Unit shows some areas of mobility with areas of disrupted banding often with rare siliceous members attenuated and fractured.	
	716	721	5	5			PYROXENE HORNFELS 716 - 721	PYROXENE HORNFELS, very altered to chlorite, and other hydrous Fe/Mg mineral, very mobile zone of autobrecciation and sheering and many contorted bands.	strongly fractured
	721	746	25	25			UARTZITE 721 - 746	QUARTZITE, essentially similar to upper section of hole, a fine grained granular siliceous rock light grey in colour, a few darker and finer shaley bands generally with associated pyrite. some zones of cloudy floculent cryptocrystalline quartz, veining and banding in part. A strongly mottled texture in part with well developed small silica blebs.	
	746	754	8	8				'GRANITE' composition essentially that of diorite-quartz diorite, plagioclase quartz abundant biotite, many bands of fine micaceous composition, grades gradually into underlying unit.	

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D	ASSAYS WO_3	ASSAYS Mo	GEOLOGICAL DESCRIPTION	FRACTURING
	745	767.5	13.5	13.5			QUARTZITE, strongly granitised and grading to 'granitic' texture and composition throughout. Biotite rich, floculent quartz and feldspar irregular zones of completely dioritic appearance, lower contact highly gradational and contorted.	
	767.5	785.5	18	18			GRANITE, fine to medium grained, with pink orthoclase becoming approximately equal in percentage with plagioclase, a few aplitic bands. Minor ironstaining.	
	785.5	795	10.5	10.5			GRANITE, fine grained abundant muscovite, mica makes up 30% to 40% of rock in part, quart and feldspar very blotchy and irregular coarser grains and very fine groundmass. Brick red heamatitic ironstain in part.	
	795	803	8	8			GRANITE, medium grained, orthoclase plagioclase and quartz and biotite accessory. Brick red heamatitic ironstain at top. A few clayey joints.	
	803	808.5	5.5	5.5			GRANITE, fine grained very cloudy and diffuse texture biotite absent, well developed needles of hornblende. Needles well crystaline in rosettes and partial clusters as well as alone.	
	808.5	819	11.5	11.5			GRANITE, medium grained, some minor porphyritic feldspar, generally plagioclase, abundant biotite some bands 50% + biotite.	
	819	868	49	49			GRANITE, medium to coarse grained, orthoclase, plagioclase-quartz, biotite texture rather cloudy and many feldspars have diffuse margins, minor porphyritic feldspar. A few thin fine grained aplitic bands. A few well developed joints with clayey filling and some alteration.	
							END OF HOLE	