NEW CO-ORD'S FOR SURFACE DDH's AT BOLD HEAD ORIGINALLY ON OLD BH GRID

Drill No	Eastings	Northings
266	40237.96	10466.73
268	40328.00	10504.09
269	40390.16	10488.32
270	40315.53	10545.06
277	40361.91	10502.68
279	40388.04	10417.61
282	40363.44	10570.34
285	40417.11	10474.28
301	40282.50	10541.36
303	40253.26	10488.86
304	40253.01	10557.03
305	40444.57	10461.93
306	40416.62	10407.58
307	40361.61	10433.69
308	40307.06	10392.77
309	40361.16	10365.81
310	40415.79	10337.69
311	40252.68	10420.13
312	40279.22	10472.99
313	40390.02	10556.70
314	40424.09	10525.33 OK
315	40333.63	10447.86
316	40333.85	10582.37
317	40280.10	10611.04
318.	40307.07	10665.67
319	40361.90	10638.69
320	40388.42	10624.80
321	40417.10	10611.13
322	40307.13	10733.75
324	40416.14	10680.11
325	40429.86	10569.85
326	40311.43	10804.30
327	40336.29	10789.76
328	40364.45	10777.79
329	40389.90	10765.59
350	40292.14	10774.03
351	40279.42	10751.10
355	40320.52	10830.25
356	40347.63	10817.09
357	40277.42	10813.22

ALL ERRTINGS BEGIN WITH THE NUMBER "411"

370 373
371 374
372

DDH No.	Eastings	Northings
221	40362.53	10405.25
222	40348.40	10505.86
224	10390.45 N	10489.43 E
223	40432.93	10406.64
225	40230.36	10547.63
226	40413.69	10610.06
227	40443.62	10530.05
228	40403.98	10450.73
229	40308.30	10529.55
230	40279.89	10473.18
230A	40275.25	10465.39
231	40347.82	10475.38
234	40334.99	10583.04
236	40279.37	10542.56
237	40345.77	10517.15
238	40314.69	10455.72
239	40390.25	10692.56
240	40364.84	10703.54
241	40362.19	10569.89
243	40334.79	10650.95
244	40308.88	10596.12
246	40340.63	10462.36
247	40261.97	10636.77
248	40408.67	10727.44
249	40398.67	10575.53
250	40211.35	10679.00
251	40300.11	10515.13
252	40400.89	10652.66
253	40375.55	10461.01
253A	40375.69	10461.28
254	40324.40	10702.95
255	40250.03	10489.03
264	40375.21	10596.97
265	40346.00	10537.84

ALL EASTINGS BEGIN WITH the NUMBER "4"

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO: BH 374

PLANNING

Proposer: K.I.S. Depth: 60m

Location: Bold Head Surface

Purpose of hole: Oreblock N end of A lens

Co-ordinates: 10 352 E 10 600 N

Inclination: Vertical Target depth: 20m

Bearing: °Grid °Magnetic

Target: E N

Approved by: M. Baker Date: 25.5.74

SURVEY

Survey Co-ords: 10 352 E 10 600 N

Survey bearing: °Grid °Magnetic

Surveyed in by: J. Cook Date: 4-6-74

Actual Co-ords: 40 351.99E 10.600.10 N

R.L. of collar: 119.51 Inclination of hole:

Picked up by: J. Cook Date: 10.6.74

SUMMARY

Logged by: S. G. Brown

Results: 27 - 40 m 13m @ 1.13% WO_3 0.052% MO

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 6.6.74 Date terminated: 8.6.74

Casing:	Size :	NX			
	Depth:	27.43			
Core:	Size :	HQ	NQ		
	Depth:	27.43	50.59		

Wedge Runoff:

Wedge placed: Nil Depth:

Proposed by: Approved by:

Reason:

Extension: Nil Final depth: 50.59m

Reason for termination: Below A lens mineralisation.

Condition of hole on completion:

Casing : NX to 27.43m

Cemented: Yes

Bore hole survey: No

Water: No water fluctuation.

Comments on drilling conditions:

GEOPEKO LIMITED - BOLD HEAD MINE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. NO. BH 374 (surface)

Survey method : Multishot Camera
Final depth : 50.60m
Casing depth : 27.43m

Depth surveyed to : 48.77m
Date surveyed : 10.6.74
Surveyed by : V. Powell
Checked by : G. Buckland

DEPTH	Bearing		Inclination		True Vertical depth	Co-oridinates	
	Grid	Mag.	Read	Corrected		S	E
6.10			0°45'	-89°15'	6.10		
24.38			1°	-89°	24.38		
30.48	156°	130°	1°	-89°	30.48	0.16	0.24
36.58	122°	96°	1°30'	-88°30'	36.57	0.18	0.40
42.67	112°	86°	1°	-89°	42.67	0.19	0.50
48.77	104°	78°	1°	-89°	48.76	0.16	0.61

REMARKS

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO.BH 374 (surface)

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 8.10	orange clay				2.59-3.96 3.96-5.64 5.64-6.32 otherwise	66% 74% 71% 100%		h = 4 w = 4
8.10 - 11.58	orange clay				8.10-9.91 9.91-11.58	91% 64%		h = 3 w = 3-4
11.58-24.69	weathered volcanics? weathered mine series	16		iron oxide	11.58-13.11 13.11-14.63 14.63-17.98 17.98-19.20 19.20-21.34 21.34-24.69	100% 53% 83% 57% 33% 19%	21	h = 2-3 w = 3 but between 18.70-21.50 h = 4 w = 4
24.69-27.28	marble					7		h = 1 w = 1 see 1 below
27.28 - 42.00	pgh, podded bh							see 2 below
42.00-50.60	bph	12		clay at 50.2m	43.7m 65° L.A.O.C. 44.50-46.63 (core is lost in the interval 45.97-46.63) 46.63-47.24 otherwise	80% 90% 100%	59	h = 1 w = 1 bad ground 46.0-47.5m At 46.80 core is leached and apparent bedding disrupted FAULT?

FURTHER DATA & REMARKS (Compression Tests)

For notes see attached paper.

NOTES FOR SUMMARY STRUCTURAL DATA.

1. Only 0.18m of marble core was recovered in the interval 24.69 - 27.28m (7% core recovery). A 2.41m cavity was reported by the driller.

2. 27.28 - 42.0m, core was split before engineering log compiled. Evidence from the remaining half core suggests that the ground is "very good".

3. Core size:

0 - 27.28m	HQ (63.5mm dia.)
27.28 - 50.60m	NQ (46.5mm dia.)

4. Hardness (h)
   1. Very hard
   2. Hard
   3. Intermediate
   4. Incompetent

   Weathering (w)
   1. Unweathered
   2. Slightly weathered
   3. Moderately weathered
   4. Severely weathered.

GEOPEKO LIMITED - BOLD HEAD MINE

ASSAY DATA

D.D.H. NO. BH 374

SAMPLE NO.	DEPTH (METRES)				ELEMENTS						COMMENTS
	From	To	Length	Length recovered	WO_3	Mo					
0595	27	28	1.0	1.0	3.2	0.14					
6	28	29	"	"	0.38	0.04					
7	29	30	"	"	1.14	0.06					
8	30	31	"	"	0.40	0.02					
9	31	32	"	"	0.70	0.07					
0600	32	33	"	"	1.46	0.03					
0623	33	34	"	"	0.40	0.02					
4	34	35	"	"	0.23	<0.01					
5	35	36	"	"	0.64	0.03					
6	36	37	"	"	0.82	0.04					
7	37	38	"	"	2.02	0.08					
8	38	39	"	"	1.46	0.06					
9	39	40	"	"	2.80	0.09					
0630	40	41	"	"	0.03	<0.01					
0631	41	42	"	"	0.01	<0.01					

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

GEOPEKO LIMITED - BOLD HEAD SURFACE

GEOLOGICAL LOG

D.D.H. NO. BH 374

0 - 11.58 **CLAY**

A fine orange brown clay throughout no apparent rock chips. No mineralisayion.

11.58 - 21.34 **WEATHERED VOLCANICS**

Well weathered volcanics initially just clay but becoming harder to 21.34m.

21.34 - 24.68 **WEATHERED MINE SERIES**

Weathered rock and mud very soft section with some scheelite visible in the last metre or so.

24.68 - 27.66 **MARBLE**

A white grey recrystalised limestone m of this was not recovered as a cavity exisited here from to m. This unit is unmineralised.

27.66 - 39.14 **PYROXENE GARNET HORNFELS**

A fine grained green brown pyroxene garnet skarn. The garnet is mostly andradite and there is high scheelite grade throughout. Good molybdenum is visible in the upper most 5m.

39.14 - 39.50 **PODDED BIOTITE HORNFELS**

The ground mass of this unit is predominantly a fine grained brown purple biotite hornfels. Small lime and pyroxene rich angular fragments occursin this unit. The unit is barren.

39.50 - 40.35 **PYROXENE GARNET SKARN**

Similar to the pyroxene garnet skarn described above. Moderate grade scheelite throughout.

40.35 - 50.60 **BPH**

An irregular banded unit in which the ground mass is predominantly of fine brown bh. The bands are normally thin and pyroxene rich although some calcite garnet bands occur in the upper portion of this unit. Between 46 - 47.5m the core is badly broken and vugs occur in two places. Bedding ;

43m 74° LCA
47m 76° LCA.

Some trace scheelite occurs in the calcite garnet veins in the first 2m.

50.60 E.O.H.

• 3048

Sheet No. 1. of 1.

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 374 Date Surveyed 10-6-74

Total Depth 166 (50.60) Depth Surveyed To 160 (48.77)

Casing Depth 90 (27.43) Surveyed By V.P. - R.S

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/
6.10 20	0 145'	0 145'	.9999 .0131	20	6.10 20								
	0 45'												
12.19 40	— —	— —		20	12.19 40								
	— —	— —	.9999										
18.29 60	0 45'	0 45'		20	18.29 60								
			.0131										
24.38 80	1° 00'	1° 00'	.9998 .0175	20 80	24.38 80	0.35	S 64° E	S 64° E	.4384 .8988	S 0.15 0.05	E 0.31 0.09	S 0.15 0.05	E 0.3 0.0
					30.48								
30.48 100	1° 45'	1° 45'	.9995 .0305	19.99 100	99.99 100	0.61	S 50° E	130 S 50° E	.6428 .7660	0.39 0.12	0.47 0.14	0.54 0.16	0.78 0.24
	1° 45'				36.57		S 50° E						
36.58 120	1° 30'	1° 30'	.9997 .0262	19.99 120	119.98 120	0.52	S 84° E	S 84° E	.1045 .9945	0.05 0.02	0.52 0.16	0.59 0.18	1.30 0.40
					42.67								
42.67 140	1° 00'	1° 00'	.9998 .0175	20	139.98 140	0.35	S N 85° E	N 85° E	.0872 .9962	0.03	0.35 0.12	0.61 0.19	1.65 0.50
					48.76								
48.77 160	1° 00'	1° 00'	.9998 .0175	20	159.98 160	0.35	N 78° E	078 N 78° E	.2079 .9781	N 0.07 0.04	E 0.34 0.10	N 0.54 0.16	E 1.99 0.61
	1° 00'						N 78° E	78					

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 374 Date Surveyed 10-6-74

Total Depth 166 Depth Surveyed To 160

Casing Depth 90 Surveyed By VP

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct	
1	0	Open			23	23	m	—	—	
2	1	Open.			24	23	m.	—		
3	2	m			25	24	40	—	—	
4	3	m			26	25	20	75°		
5	4	20	45'	—	27	26	m.			
6	5	40?	—	—	28	27	m			
7	6	60	45'		29	28				
8	7	80	1°	S 64° E	30	29				
9	8	100	1°45'	S 50° E	31	30				
10	9	100	1°45'	S 50° E	32	31				
11	10	100	1°45'	S 50° E	33	32				
12	11	120	1°30'	S 84° E	34	33				
13	12	140	1°	S 85° E	35	34				
14	13	160	1°	N 78° E	36	35				
15	14	160	1°	N 78° E	37	36				
16	15	160	1°	N 78° E	38	37				
17	16	160	1°	N 78° E	39	38				
18	17	160	1°	N 78° E	40	39				
19	18	m	—	—	41	40				
20	19	m	—	—	42	41				
21	20	m	—	—	43	42				
22	21	m	—	—	44	43				

140
120
90

REMARKS:-

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO: BH 373

PLANNING

Proposer: K.I.S. Depth: 60m

Location: Bold Head Surface

Purpose of hole: Oreblock N end of A lens

Co-ordinates: 10 378 E 10 575 N

Inclination: Vertical Target depth: 60m (30m)

Bearing: / °Grid °Magnetic

Target: / E N

Approved by: M. Baker Date: 25.5.74

SURVEY

Survey Co-ords: 10378.39 E 10575.09 N

Survey bearing: °Grid °Magnetic

Surveyed in by: S. Cook Date: 20.5.74

Actual Co-ords: 10 378.39 E 10 575.09 N

R.L. of collar: 122.65 Inclination of hole:

Picked up by: J. Cook Date: 3.6.74

SUMMARY

Logged by: S. G. Brown

Results: 66m - ~~70~~ 69m 3m @ 2.47% WO_3 0.11% Mo

84m - 85m 1m @ 0.46% WO_3 0.02% Mo

B lens: 130m - 133m 3m @ 0.85% WO_3 0.03% Mo

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 28.5.74 Date terminated: 5.6.74

Casing:	Size :	NX			
	Depth:	20.72			
Core:	Size :	HQ	NQ		
	Depth:	18.28	152.40		

Wedge Runoff:

Wedge placed: Nil Depth:

Proposed by: Approved by:

Reason:

Extension: Nil Final depth: 152.40

Reason for termination: Below 'b' lens mineralisation.

Condition of hole on completion:

Casing : Left

Cemented: Yes

Bore hole survey: Yes

Water: No fluctuation

Comments on drilling conditions:

GEOPEKO LIMITED - BOLD HEAD MINE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. NO.BH 373 (surface)

Survey method : Multishot Camera
Final depth : 152.40m
Casing depth : 21.34

Depth surveyed to : 152.40m
Date surveyed : 6.6.74
Surveyed by : V. Powell
Checked by : G. Buckland

DEPTH	Bearing		Inclination		True Vertical depth	Co-oridinates	
	Grid	Mag.	Read	Corrected		E	N
6.10			1°15'	-88°45'	6.10		
18.29			1°15'	-88°45'	18.29		
30.48	032°	008°	1°30'	-88°30'	30.48	0.03	0.16
48.77	010°30'	344°30'	2°	-88°	48.76	0.05	0.73
60.96	013°30'	347°30'	2°30'	-87°30'	60.94	0.20	1.23
79.25	359°	333°	3°30'	-86°30'	79.19	0.52	2.17
91.44	353°	327°	3°45'	-86°15'	91.36	0.94	2.81
109.73	343°	317°	4°30'	-85°30'	109.60	1.81	3.81
121.92	337°30'	317°30'	5°	-85°	121.75	2.56	4.51
140.21	339°	313°	5°15'	-84°45'	139.96	3.77	5.61
152.40	339°	313°	5°30'	-84°30'	152.10	4.61	6.39

REMARKS

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. BH 373 (surface)

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 4.57	orange brown clay							h = 4 w = 4
4.57 - 8.85	weathered quartzite	14		clay		100	32	h = 3 w = 3
8.85 - 20.73	weathered quartzite	12		white clay up to 3mm thick; red-brown ironoxide	16.76-19.81 93% otherwise 100%		54	h = 2 w = 2
20.73-65.00	quartzite /bh	6		ironoxide 20.73-24.0 clay, pyrite	55.78-57.91 88% 57.91-59.44 94% otherwise 100% 65m 57° L.A.O.C.		78	h = 1 w = 1
65.00-70.00	bh/pgh/bh							see 3 below
70.0-81.0	bh/pbh/ap	8		clay at 79.30, carbonate and pyrite at 75.20	70.0-71.63 94% otherwise 100%		78	bad ground 70.20 - 71.65
81.0-92.0	ap/pyroxene skarn/pgh							see 3 below
92.0-129.0	pgh/bh/bph/ ap/lower volcanics	4		carbonate @ 114.90 & 115.20		100	96	core leached 93.5-94.0

FURTHER DATA & REMARKS (Compression Tests)

1. Core size: 0 - 20.73 HQ (63.5mm dia.)
   20.73 - 152.40 NQ (46.5mm dia.)

2. Hardness(h)
   1. Very hard
   2. Hard
   3. Intermediate
   4. Incompetent

   Weathering(w)
   1. Unweathered
   2. Slightly weathered
   3. Moderately weathered
   4. Severely weathered

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO.BH 373 (surface)

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
129.0-134.0	lower volcanics/ gh/ch							see 3 below
134.0-142.0	marble	3		carbonate @ 140.52 5mm wide carbonate seam approx. parallel to L.A.O.C. 141.40-142.20		100	100	
142.0-144.0	marble							see 3 below
144.0-148.0	marble	3		minor carbonate @ 145.40		100	99	
148.0-150.0	marble/ pgh							see 3 below
150.0-152.40	pgh/bh	7		minor carbonate		100	83	

FURTHER DATA & REMARKS (Compression Tests)

3. Core was split in this interval before engineering log compiled. Evidence from the remaining half core suggests that the ground is "very good".

GEOPEKO LIMITED - BOLD HEAD MINE

ASSAY DATA

D.D.H. NO BH 373 (surface)

SAMPLE NO.	DEPTH (METRES) From	To	Length	Length recovered	ELEMENTS WO_3	Mo					COMMENTS
0589	65	66	1.0	1.0	<0.01	<0.01					
0569	66	67	"	"	2.50	0.12					
70	67	68	"	"	4.60	0.18					
1	68	69	"	"	0.30	0.02					
0588	69	70	"	"	0.12	<0.01					
0572	81	82	"	"	0.05	<0.01					
3	82	83	"	"	0.14	<0.01					
4	83	84	"	"	0.02	<0.01					
5	84	85	"	"	0.46	0.02					
6	85	86	"	"	0.24	<0.01					
7	86	87	"	"	0.01	<0.01					
8	87	88	"	"	0.01	<0.01					
9	88	89	"	"	0.06	<0.01					
80	89	90	"	"	0.24	<0.01					
1	90	91	"	"	0.15	<0.01					
0582	91	92	"	"	0.08	<0.01					
0583	129	130	"	"	<0.01	<0.01					
4	130	131	"	"	1.31	0.04					
5	131	132	"	"	0.81	0.03					
6	132	133	"	"	0.44	0.01					
0587	133	134	"	"	0.02	<0.01					
1490	142	143	"	"	0.03	<0.01					
1	143	144	"	"	<0.01	<0.01					
2	144	145	"	"	0.03	<0.01					
1493	145	146	"	"	0.04	<0.01					

SPECIFIC GRAVITY

Depth (m) :

Rock Type :

Determined by:

GEOPEKO LIMITED - BOLD HEAD SURFACE

GEOLOGICAL LOG

D.D.H. NO. BH 373

0 - 4.57 **CLAY**

Orange brown clay with weathered rock in last 2m.

4.57 - 20.73 **QUARTZITES (WEATHERED)**

Fine grained spotted grey quartzites and siltstones well weathered along the joints throughout. The core is very weathered and broken to about 17m.

20.73 - 63.11 **QUARTZITES**

This unit is composed of a varity of sedimentory types ranging from quartzites to dark grey siltstones, pyrite is common throughout.

Some units have an irregular brown splotchy appearance but in no case was banded as distinct as that normally occuring in the biotite hornfels of the mine series present.

63.11 - 65.56 **BIOTITE HORNFELS**

This unit is grey purple in colour and shows banding with some pyroxene present in it. This unit is completely barren. 57° LCA @ 65m.

65.56 - 69.20 **PGH**

A fine grained green pyroxene garnet skarn. The garnet is mainly andradite and large calcite ovoids are present in this area. There is patchy mineralisation throughout. The last 1.5m contains high numbers of vugs.

Quite large amounts of pyrite are present in this unit with minor cpy.

69.20 - 74.74 **BIOTITE HORNFELS**

A fine grained pyroxene rich biotite hornfels. The unit is grey green in colour and completely barren.

GEOPEKO LIMITED - BOLD HEAD SURFACE

GEOLOGICAL LOG

D.D.H. NO.BH 373

74.74 - 80.42 PYROXENE BIOTITE HORNFELS

In this section of the unit there are some calcite/garnet ovoid ringed with pyroxene holes present a very narrow 10cm aplite vein occurs at 76.78m. The pyroxene is dominant over the biotite.

80.24 - 81.44 APLITE

This is a feldspar rich aplite throughout, the first 50m being full of biotite books which appear to have been differentially weathered out to give a pitted appearance.

81.44 - 91.14 PYROXENE SKARN

This appears to be a development of pgh with more garnet present throughout. Mineralisation is patchy throughout, and a small biotite pyroxene unit occurs at 85.51 - 85.93m.

At 89.31m there is a very large amount of pyrhotite and pyrite with moderate chalcopyrite.

91.14 - 93.35 PGH

A pyroxene garnet hornfels with good angular calcite pods.

93.35 - 94.05 ZONE OF WATER CHANMILS

This zone consists of biotite hornfels with some pyroxene hornfels and marble. Some marble has been leached out and open channals now occur some showing development of clinohimite crystals on their walls.

94.05 - 100.48 BIOTITE HORNFELS

A spotted grey brown biotite rich rock type with well developed laminations and minor pyroxene rich bands. The unit is medium to fine grained and is completely barren.
Angle of laminations 50^{o} at 96.5m.

100.48 - 103.94 BIOTITE PYROXENE HORNFELS

A XXXXXXXX disturbed banded fine grained unit in which initially the biotite and pyroxene are in approx. equal amounts. The amount of pyroxene increases to 104m.

GEOPEKO LIMITED - BOLD HEAD SURFACE

GEOLOGICAL LOG

D.D.H. NO. BH 373

103.94 - 108.20 APLITE

This aplite varies from a very fine grained rock type at the contacts to a much coaser almost granitic texture in the centre. A pegmatitic phase rich in feldspar occurs in the ~~XXXXXXXXX~~ first 20cm.

108.20 - 109.99 BPH

As above dominant mineralis pyroxene

109.99 - 129.73 LOWER VOLCANICS

A well spotted mafic rich lower volcanic. Quite distinct feldspar laths are present throughout.

The first 1m has a less spotted appearance and is much finer grained.

Some minor chlortic bands are present in this unit and there contain quite high amounts of pyrite and pyrrhotite.

129.73 - 133 GARNET SKARN

The first 70cm are finely banded pyroxene garnet rock and is more a banded pgh than a skarn.

The rest is typical andradite skarn with minor calcite throughout; the skarn has mineralisation throughout.

133. - 148.83 MARBLE

A normal grey bluish banded marble. The banding decreases to 148m. Minor blebs of pegmatite are present as at 39.24m. Banding at 80^{o} 1ca @ 134m. Between 134.27 and 134.65 there is a small banded unit of pyroxene garnet calcite hornfels which is unmineralised. Between 142.04 and 143.50m there is a small band of marble with quite large amounts of green pyroxene and lesser amounts of andradite garnet. Some minor mineralisation occurs here.

148.83 - 150.14 PYROXENE GARNET HORNFELS

This appears to be an alteration zone between the marble and the biotite horfels below which is quite well podded. The lower part of the pgh here is similar in texture. Minor mineralisation is present throughout.

GEOPEKO LIMITED - BOLD HEAD SURFACE

GEOLOGICAL LOG

D.D.H. NO.BH 37$

150.14 - 152.40 BIOTITE HORNFELS

This unit is a fine grained grey brown biotite hornfels. The banding is irregular and streaky and small fragments of calcite are present throughout.

152.40 E.O.H.

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 373 Date Surveyed 6-6-74

Total Depth 500 152.40 Depth Surveyed To 500 152.40

Casing Depth 70 21.34 Surveyed By VP and ML

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/W
*6.10													
20'	10 15'	1° 15'	.9998 / .0218	20.00	6.10 / 20.00								
	10 15												
40'	1° 00	1° 00	.9998 / .0175	2900	12.19 / 40.00								
	1° 00												
18.29													
* 60	1° 15'	1° 15'	.9998 / .0218	20.00	18.29 / 60.00								
	1° 15'												
80	1° 15'	1° 22'	.9998 / .0240	20.00	24.38 / 80.00								
	1° 30'												
30.48													
* 100	1° 30'	1° 30'	.9997 / .0262	19.99	30.48 / 99.99	0.52	N 10° E / N 11° E	008 / N8°30' E	.9890 / .1478	N 0.51	E 0.1	N 0.51 / 0.16	E 0.03 / 0.0
	1° 30'						N 9° E / N 4° E						
120	1° 45'	1° 45'	.9995 / .0305	19.99	36.57 / 119.98	0.61	0° N	0° N	1.000 / 0.000	0.61	00	0.34 / 1.12	0.03 / 0.1
	1° 45'						0° N						
140	20 00	1° 52'	.9995 / 0327	19.99	42.66 / 139.97	0.65	N 9° W	N9°30' W	.9863 / .1650	N 0.64	W 0.11	N 0.54 / 1.76	W 0.09 / 0.01
	1° 45'						N 10° W						
48.77													
* 160	20 00	1° 52'	.9997 / .0327	19.99	48.76 / 159.96	0.65	N 12° W	N15°30' W	.9636 / .2672	0.63	0.17	0.73 / 2.39	0.05 / 0.18
	1° 45'						N 19° W						
180	20 15'	20 15'	.9992 / .0393	19.98	54.85 / 179.94	0.79	N 19° W	N 19° W	.9455 / .3256	0.75	0.26	0.96 / 3.14	0.13 / 0.44
	2° 15'						N 19° W						
60.96													
* 200	2° 45'	2° 37'	.9989 / .0458	19.98	60.94 / 199.92	0.92	N 16° W	345 / N 12°30' W	.9763 / .2164	0.90	0.20	1.23 / 4.04	0.20 / 0.64
	2° 30'						N 9° W						
220	3° 00	3° 07'	.9987 / 0502	19.97	67.02 / 219.89	1.00	N 16° W	N 17° W	.9563 / .2924	0.95	0.29	1.52 / 4.99	0.22 / 0.73
	3° 15'						N 18° W						
240	3° 15'	3° 15'	.9984 / .0567	19.97	73.11 / 239.86	1.13	N 20° W	N 21°30' W	.9304 / .3665	1.05	0.41	1.84 / 6.04	0.34 / 1.14
	3° 15'						N 23° W						
79.25													
* 260	3° 30'	3° 30'	.9981 / .0610	19.96	79.19 / 259.82	1.22	N 24° W	N 27° W	.8910 / .4540	1.09	0.55	2.17 / 7.13	0.52 / 1.69
	3° 30'						N 30° W						
280	3° 45'	3° 37'	.9980 / 0632	19.96	85.28 / 279.78	1.26	N 30° W	N 34°30' W	.8241 / .5664	1.04	0.71	2.49 / 8.17	0.73 / 2.40
	3° 30'						N 39° W						

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 373 Date Surveyed 6-6-74

Total Depth 500 152.40 Depth Surveyed To 500

Casing Depth 70 21.34 Surveyed By J.P. and M.L.

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/W
91.44					91.36								
300	3° 45'	3° 45'	·9979 ·0624	19.96	299.74	1.25	N 31° W	N 33° 15' W	·8363 ·5483	1.05	0.69	2.31 9.22	0.9 3.0
	3° 45'						N 36° W						
320	4° 00	3° 52'	·9977 ·0676	19.95	97.44 319.69	1.35	N 33° W	N 36° 30' W	·8030 ·5948	1.08	0.80	3.14 10.30	1.19 3.89
	3° 45'						N 40° W						
340	4° 00	4° 07'	·9974 ·0720	19.95	103.52 339.64	1.44	N 40° W	N 42° 30' W	·7373 ·6756	1.06	0.97	3.46 11.36	1.48 4.8
	4° 15'						N 45° W						
109.73 360	4° 30'	4° 30'	·9969 ·0785	19.94	109.60 359.58	1.57	N 41° W	N 43° W	·7314 ·6820	1.15	1.07	3.81 12.51	1.81 5.93
	4° 30'						N 45° W						
380	4° 45'	4° 45'	·9966 ·0828	19.93	115.67 379.51	1.66	N 46° W	N 46 W	·6947 ·7193	1.15	1.19	4.16 13.66	2.17 7.12
	4° 45'						N 46 W						
121.92 400	5° 00	4° 52'	·9964 ·0852	19.93	121.75 399.44	1.70	N 50° W	312 N 48° 30' W	·6626 ·7490	1.13	1.27	4.51 14.79	2.56 8.39
	4° 45'						N 47 W						
420	5° 00	5° 00	·9962 ·0872	19.92	127.82 419.36	1.74	N 49° W	N 48° W	·6691 ·7431	1.16	1.29	4.86 15.95	2.95 9.68
	5° 00						N 47° W						
440	5° 15'	5° 07'	·9960 ·0894	19.92	133.89 439.28	1.79	N 48° W	N 48° 30' W	·6626 ·7490	1.19	1.34	5.27 17.14	3.36 11.02
	5° 00						N 49° W						
140.21 460	5° 15'	5° 15'	·9958 ·0915	19.92	139.96 459.20	1.83	N 49° W	N 47° W	·6820 ·7314	1.25	1.34	5.61 18.39	3.77 12.36
	5° 15'						N 45' W						
480	5° 30'	5° 22'	·9956 ·0937	19.91	146.03 479.17	1.87	N 46° W	N 47° 30' W	·6756 ·7373	1.26	1.38	5.99 19.65	4.19 13.74
	5° 15'						N 49° W						
152.40 500	5° 30'	5° 30'	·9954 ·0958	19.91	152.10 499.02	1.92	N 47° W	313 N 47° W	·6820 ·7314	1.31	1.40	6.39 20.96	4.61 15.14
	5° 30'						N 47° W						
	5° 30'						N 47° W						
	5° 30'						N 47° W						

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 373 Date Surveyed 6-6-74

Total Depth 500 Depth Surveyed To 500

Casing Depth 70 Surveyed By V.P. & M.L.

	Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
1	0	0	Open	—	—	23	22	240	3°15'	N 20° W
2	1	1	Open	—	—	24	23	240	3°15'	N 20° W
3	2	2	m	—	—	25	24	260	3°30'	N 24° W
80 4	3	3	m	—	—	26	25	280	3°45'	N 30° W
5	4	4	m	—	—	27	26	300?	3°45'	N 31° W
6	5	5	20	1°15'	—	28	27	300	3°45'	N 31° W
7	6	6	20	1°15	—	29	28	320	4°	N 33° W
8	7	7	m	—	—	30	29	340	4°	N 40° W
9	8	8	40	1°	—	31	30	360	4°30'	N 41° W
10	9	9	60?	—	—	32	31	360	4°30'	N 41° W
11	10	10	60?	1°15'	—	33	32	360	4°30'	N 41° W
12	11	11	80	1°15'	—	34	33	380	4°45'	N 46° W
13	12	12	100	1°30'	N 10° E	35	34	400	5°	N 50° W
14	13	13	100	1°30	N 11° E	36	35	400	5°	N 50° W
15	14	14	120	1°45'	0° N	37	36	420	5°	N 49° W
16	15	15	140	2°	N 9° W	38	37	440	5°15'	N 48° W
17	16	16	160	2°	N 12° W	39	38	460	5°15'	N 49° W
18	17	17	160	2°	N 12° W	40	39	460?	5°15'	N 49° W
19	18	18	180	2°15'	N 19° W	41	40	480	5°30'	N 46° W
20	19	19	200	2°45'	N 16° W	42	41	500	5°30'	N 47° W
21	20	20	200	2°45'	N 16° W	43	42	500	5°30'	N 47° W
22	21	21	220	3°	N 16° W	44	43	500	5°30'	N 47° W

REMARKS:- 4

9 4 34

10 8°30'

11

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 373 Date Surveyed 6-6-74

Total Depth 580' Depth Surveyed To 500

Casing Depth 70' Surveyed By UP & ML

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
45	44	500	5°30'	N 47°W	67	66	220 m.	3°30'	N 30°W
46	45	500	5°30'	N 47°W	68	67	260	3°30'	N 30°W
47	46	500	5°30'	N 47°W	69	68	240	3°15'	N 23°W
48	47	500	5°30'	N 47°W	70	69	240	3°15'	N 20°W
49	48	500	5°30'	N 47°W	71	70	220	3°15'	N 18°W
50	49	480?	5°15'	N 49°W	72	71	220?	3°	N 18°W
51	50	480	5°15'	N 49°W	73	72	200	2°30'	N 9°W
52	51	460	5°15'	N 45°W	74	73	m	—	—
53	52	440	5°	N 49°W	75	74	180	2°15'	N 19°W
54	53	m	—	—	76	75	160	1°45'	N 19°W
55	54	420	5°	N 47°W	77	76	m	—	—
56	55	400?	4°45'	N 47°W	78	77	140	1°45'	N 10°W
57	56	m	—	—	79	78	120	1°45'	N 0°W
58	57	380	4°45'	N 46°W	80	79	120? m	—	—
59	58	360?	4°30'	N 45°W	81	80	100	1°30'	N 40°E ~~N 46°W~~
60	59	m	—	—	82	81	100	1°30'	N 9°E
61	60	340	4°15'	N 45°W	83	82	80	1°30'	N 7°E
62	61	320	3°45'	N 40°W	84	83	80?	—	—
63	62	m	—	—	85	84	60	1°15'	—
64	63	300	3°45'	N 36°W	86	85	m	—	—
65	64	m	—	—	87	86	40	1°	—
66	65	280	3°30'	N 39°W	88	87	20 m	—	—

REMARKS:-

373

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 373 Date Surveyed 6-6-74

Total Depth 500 Depth Surveyed To 500

Casing Depth 70 Surveyed By VD & ML

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct	
89	88	20 m	←	—						
90	89	20 m	—	—						
91	90	20	—	—						
92	91	M	—	—						
93	92	M	—	—						
94	93	Open	—	—						
95	94									
96	95									
97	96									
98	97									
99	98									
100	99									

REMARKS:-

DDH BH 373
Total depth : 152.40 m
Surveyed to : 152.40
Date surveyed : 6-6-74
Surveyed by : VD
Scale : 1:500
Casing : 21.34 m.

I.S.G.N

MAG. N

152.10 VD

121.75 VD

91.36 VD

60.92 VD

30.48 VD

373.
210
1,500'

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO: BH 372

PLANNING

Proposer: K.I.S. Depth: 75m

Location: Northern area of A lens

Purpose of hole: More accurately define N end of A lens

Co-ordinates: 10 365 E 10 625 N

Inclination: Vertical Target depth:

Bearing: °Grid °Magnetic

Target: E N

Approved by: M. Baker Date: 1.5.74

SURVEY

Survey Co-ords: E N

Survey bearing: °Grid °Magnetic

Surveyed in by: Date:

Actual Co-ords: 10 ~~365~~ 365.22 E 10 625.00N

R.L. of collar: 1119.40 Inclination of hole:

Picked up by: J. Cook Date: 9.5.74

SUMMARY

Logged by: M. J. Danielson

Results: Boundary Fault at 36.38m

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 10.5.74 Date terminated: 14.5.74

Casing:	Size :	NX	
	Depth:	30.18	
Core:	Size :	HQ	NQ
	Depth:	30.18	81.53

Wedge Runoff:

Wedge placed: Nil Depth:

Proposed by: Approved by:

Reason:

Extension: Nil Final depth: 81.53

Reason for termination: Hole passed below A lens zone of interest

Condition of hole on completion:

Casing : Nil

Cemented: Yes

Bore hole survey: No

Water: Normal water pressure throughout.

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. BH 372

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 8.0	orange clay					0 - 5.5 approx. 80% 5.5 - 8.0 92%		h = 4 w = 4
8.0 - 21.64	heavily weathered quartzite	+20				75 lost core: 12.5 - 13.1 15.5 - 16.5 14.0 - 14.6	11	h = 3-4 w = 3
21.64 - 27.16	quartzite	14				100	42	h = 3 w = 3 becoming h = 2 w = 2 below 26.0m
27.16 - 35.60	quartzite					75 lost core: 32.9 - 35.4		h = 1 w = 1
35.6 - 45.42	bh	+15				89 lost core: 35.4 - 36.0	30	h = 1 w = 1
45.42 - 69.80	bh	7				100	86	h = 1 w = 1
69.8 - 81.53	bh	6				100	86	h = 1 w = 1

FURTHER DATA & REMARKS (Compression Tests)

1. Core size: 0 - 30.18 HQ (63.5mm dia.) 30.18 - 81.53 NQ (46.5mm dia

2. Hardness (h)
   1. Very hard
   2. Hard
   3. Intermediate
   4. Incompetent

   Weathering (w)
   1. Unweathered
   2. Slightly weathered
   3. Moderately weathered
   4. Severely weathered

GEOPEKO LIMITED - BOLD HEAD MINE

ASSAY DATA

D.D.H. NO. BH 372

SAMPLE NO.	DEPTH (METRES)				ELEMENTS						COMMENTS
	From	To	Length	Length recovered	WO_3	Mo					
D 0622	36.0	36.5	0.5	0.5	0.78	0.02					

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

S.G. :

GEOPEKO LIMITED - BOLD HEAD MINE

GEOLOGICAL LOG

D.D.H. NO. BH 372

Core size: 0 - 30.18 HQ
30.18 - 81.53 NQ

0 - 35.36 **QUARTZITE**

Mostly a fine grained spotted purplish grey biotite hornfels.

Weathering is exceptionally deep (27m to fresh rock) in a quartzite profile where usually 12m is depth to fresh bedrock. The deep weathering may be due to a high clay (~~kaolin~~ kaolin ?) content due to some heavily weathered aplites.

The geology in this section is not clear.

35.36 - 38.1 **FAULT ?**

The fresh quartzite in the unit above is heavily shattered below 32.2m and appears leached between 35.3 - 38.3.

0.6m core lost 35.4 - 36.0m.

Mineralisation at 36m. Assay 36.0 - 36.5m 0.78% WO_3.

38.1 - 46.50 **BIOTITE HORNFELS**

As above. 45.72 - 46.0 aplite dyke with isolated specks of scheelite. Core not split.

46.5 - 48.0 **APLITE**

Barren dine grained white pink aplite.

48.0 - 49.0 **BIOTITE HORNFELS**

49.0 - 50.1 **APLITE**

50.1 - 53.5 **BIOTITE HORNFELS**

GEOPEKO LIMITED - BOLD HEAD MINE

GEOLOGICAL LOG

D.D.H. NO.BH 372

53.5 -59.79 BIOTITE HORNFELS

This unit has a fragmental tuffaceous (?) texture.

59.79 - 62.18 APLITE

A dark grey more basic variety.

62.18 - 79.88 SPOTTED BIOTITE HORNFELS

Pale white sub rounded spots up to 0.5cm dia. Spots decreasing in intensity to 79.88m.

At 73.9 is a 1.5cm wide carbonate vein containing clinohumite.

79.88 - 81.53 APLITE

81.53 E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO: BH 371

PLANNING

Proposer: K.I.S. Depth: 75m

Location: Bold Head, Northern A lens area.

Purpose of hole: Oreblocking N end of A lens.

Co-ordinates: 10 365 E 10 600 N

Inclination: Vertical Target depth:

Bearing: °Grid °Magnetic

Target: E N

Approved by: M. Baker Date: 1.5.74

SURVEY

Survey Co-ords: E N

Survey bearing: °Grid °Magnetic

Surveyed in by: Date:

Actual Co-ords: 10 364.79 E 10 600.31 N

R.L. of collar: 120.73 Inclination of hole:

Picked up by: J. Cook Date: 6.5.74

SUMMARY

Logged by: M. J. Danielson

Results:

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 5.5.74 Date terminated: 10.5.74

Casing:	Size :	NX				
	Depth:	21.38				
Core:	Size :	HQ	NQ			
	Depth:	24.23	78.94			

Wedge Runoff:

Wedge placed: Nil Depth:

Proposed by: Approved by:

Reason:

Extension: Nil Final depth: 78.94

Reason for termination: Hole passed below A lens zone of interest.

Condition of hole on completion:

Casing : Nil

Cemented: Yes

Bore hole survey: No

Water: Normal water pressure throughout.

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. BH 371

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 2.77	clay	?		clay				h = 4 w = 4
2.77 - 14.33	clay	+20		clay		91 core lost 10.4-11.0	10	h = 3 w = 3
14.33 - 21.64	biotite hornfels	10				85 core lost 14.3-15.5	45	h = 2 w = 2
21.64 - 28.28	biotite hornfels	9		clay		100	66	h = 1 w = 1
28.28 - 59.57	biotite hornfels	7				100	73	h = 1 w = 1
59.57 - 78.94	bh/ marble	7				100	78	h = 1 w = 1 bad ground 62.7 - 64.5

FURTHER DATA & REMARKS (Compression Tests)

1. Core size: 0 - 24.23 HQ 63.5mm dia. 24.23 - 78.94 NQ 46.5mm dia.
2. Oxidation on joint surfaces to 28.28m.
3. Hardness (h)
   1. Very hard
   2. Hard
   3. Intermediate
   4. Incompetent

   Weathering (w)
   1. Unweathered
   2. Slightly weathered
   3. Moderately weathered
   4. Severely weathered

GEOPEKO LIMITED - BOLD HEAD MINE

ASSAY DATA

D.D.H. NOBH 371

SAMPLE NO.	DEPTH (METRES)				ELEMENTS						COMMENTS
	From	To	Length	Length recovered	WO_3	Mo					
D 0619	46	47	1.0	1.0	0.04	<0.01					
20	77	78	"	"	0.05	<0.01					
D 0621	78	78.94	0.94	0.94	<0.01	<0.01					

SPECIFIC GRAVITY

Depth (m) :

Rock Type :

S.G. :

Determined by:

GEOPEKO LIMITED - BOLD HEAD MINE

GEOLOGICAL LOG

D.D.H. NO.BH 371

Core size: 0 - 24.23 HQ
24.23 - 78.94 NQ

0 - 41.46 QUARTZITE

Fine grained grey massive barren quartzite. No apparent bedding although some minor spotting.

If there is a fault between the quartzite and underlying bh it is impossible to see. There is no undue fracturing or lost core.

41.46 - 76.81 BIOTITE HORNFELS

Rock changes to a purplish brown colour with some bedding apparent.

53.0 55^{o} L.A.O.C.
55.5 50^{o} L.A.O.C.

44.8 - 46.5 Minor development of a grossular skarn with the occasional speck of scheelite.
Assay 46 - 47m 0.04% WO_3.

59.0 - 59.17 Aplite.

60.95 - 62.55 Aplite.

76.81 - 77.87 PYROXENE SKARN

A pyroxene rich banded andradite garnet skarn. Very minor scheelite. Core split 77m - E.O.H.

77.87 - 78.7 MARBLE

A barren grey dirty recrystallised marble.

87.70 - 78.94 BIOTITE HORNFELS

A barren brown massive biotite hornfels.

78.94 E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO: BH 370

PLANNING

Proposer: K.I.S. Depth: 65m

Location: Bold Head Surface.

Purpose of hole: Oreblock north part of A lens.

Co-ordinates: 10 345 E 10 575 N

Inclination: Vertical Target depth:

Bearing: °Grid °Magnetic

Target: E N

Approved by: M. Baker Date: 1.5.74

SURVEY

Survey Co-ords: 10 350.00 E 10 575.00 N

Survey bearing: °Grid °Magnetic

Surveyed in by: Date:

Actual Co-ords: 10 350.04 E 10 574.79 N

R.L. of collar: 1120.18 Inclination of hole: Vertical

Picked up by: J. Cook Date: 24.5.74

SUMMARY

Logged by: M. J. Danielson

Results: A lens: 31 - 35m 4m at 0.44% WO_3
46 - 55m 9m at 0.47% WO_3

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 14.5.74 Date terminated: 19.5.74

Casing:	Size :	NX				
	Depth:	23.77				
Core:	Size :	HQ	NQ			
	Depth:	24.23	65.23			

Wedge Runoff:

Wedge placed: Nil Depth:

Proposed by: Approved by:

Reason:

Extension: Nil Final depth: 65.23m

Reason for termination: Hole in unmineralised biotite hornfels.

Condition of hole on completion:

Casing : Nil

Cemented: Yes

Bore hole survey: Unsurveyed

Water: Normal water pressure throughout.

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. BH 370

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 21.79	clay	?		clay	Nil	approx. 95% 18.0 - 21.8 60%		h = 4 w = 4
21.79 - 22.10	weathered lower metavolcanics	+15		clay	Nil	100		h = 2 w = 2
22.10 - 30.36	lower metavolcanics	5			Nil	98	82	h = 1 w = 1
30.36 - 55.64	pyroxene skarn/ marble	4				100	92	h = 1 w = 1
55.64 - 65.23	biotite hornfels	12			56m 45° 58m 60°	100	65	h = 1 w = 1

FURTHER DATA & REMARKS (Compression Tests)

1. Core size: 0 - 24.2 HQ (63.5mm dia.) 24.2 - 65.2 NQ (46.5mm dia.)

2. Hardness (h)
   1. Very hard
   2. Hard
   3. Intermediate
   4. Incompetent

   Weathering (w)
   1. Unweathered
   2. Slightly weathered
   3. Moderately weathered
   4. Severely weathered

3. Oxidation on joint surface down to 22.10m.

GEOPEKO LIMITED - BOLD HEAD MINE

ASSAY DATA

D.D.H. NO.BH 370

SAMPLE NO.	DEPTH (METRES) From	To	Length	Length recovered	ELEMENTS WO_3	Mo	COMMENTS
D 0601	31	32	1.0	1.0	0.35	<0.01	
2	32	33	"	"	0.78	0.15	4m at 0.44% WO_3
3	33	34	"	"	0.37	0.03	
4	34	35	"	"	0.28	0.01	
5	35	36	"	"	0.17	<0.01	
D 0606	42	43	"	"	0.02	<0.01	
7	43	44	"	"	0.05	<0.01	
8	44	45	"	"	<0.01	<0.01	
9	45	46	"	"	0.20	<0.01	
10	46	47	"	"	0.34	0.01	
1	47	48	"	"	0.39	0.01	
2	48	49	"	"	0.38	0.02	
3	49	50	"	"	0.83	0.04	9m at 0.47% WO_3
4	50	51	"	"	0.39	0.02	
5	51	52	"	"	0.60	0.02	
6	52	53	"	"	0.50	0.02	
7	53	54	"	"	0.52	0.02	
D 0618	54	55	"	"	0.28	0.01	

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

S.G. :

GEOPEKO LIMITED - BOLD HEAD MINE

GEOLOGICAL LOG

D.D.H. NO. BH 370

Core size: 0 - 24.23 HQ
24.23 - 65.23 NQ

0 - 30.36 LOWER METAVOLCANICS

Fine to medium grained rock of predominant biotite composition with strong remmant volcanic texture with eroded feldspar laths. No mineralisation.

30.36 - 36.0 PYROXENE SKARN

A fine grained green pyroxene garnet hornfels. The garnet is mostly andradite and there is moderate to high grade scheelite between 32 - 36m.

36.0 - 45.11 MARBLE

A white grey recrystallised marble containing low grade mineralisation 42.5 - 45.11m.

45.11 - 55.64 PYROXENE SKARN

Similar unit to the pyroxene skarn described above. Moderate to high grade scheelite 46 - 54m.

55.64 - 65.23 BIOTITE HORNFELS

This unit is predominantly a fine grained brown biotite hornfels. Between 56 - 60m thin pyroxene hornfels interbeds up to 1cm wide with sulphide (pyrrhotite) inclusions occur frequently.

Bedding: 56m 45° L.A.O.C.
58m 60° L.A.O.C.

This unit is completely barren.

65.23 E.O.H.

Major fractrue 54.0 m in pgh

GEOPEKO LIMITED

D.D.H. No.: 362 A

Location:
Decline line, few yards north of Portal. No. 3 Orebody.

Purpose of Hole:
Locate fault and grouting of fault zone.

Hole Proposed by: V. Middlemass Date 23/11/72

Surveyed in by: K.I.S. Date 23/11/72

Proposed:		E		N
Surveyed:	220 138.408	E	566 700.384	N
Actual from which Drilled:	"	E	"	N

Reduced Level of Collar: 111.974 G/L 111.773 m

Bearing:- - Grid - Magnetic

Inclination:- Vertical degrees

Target; depth: ft.

Planned depth: ft.

Actual Depth: 39.62 m ft.

Date Commenced: 25/11/72

Date Completed: 10/12/72

Wedges Placed:
Nil

Extensions (if any)

Checked: M. Danielson

Summary Result:

Remarks:
Fault (?) intersected at 35.05 m.

DRILL LOG DDH: 362 A.

0 - 14.02

No Core.

14.02 - 20.0

Heavily oxidised and brecciated volcanics.

20.0 - 39.62 VOLCANICS

Clay on joint planes to 24 metres then increasing chlorite. All chlorite on joint planes below 27 metres.

Core heavily brecciated 30.9 - 31.3 metres and 33.6 - 39.62 metres. In the latter zone core is little better than rubble.

Fault ? (slickensides) at 35.05 metres.

E.O.H. 39.62 metres

GEOPEKO LIMITED

D.D.H. No.: 362 B

Location:
On line of Decline.
No. 3 Orebody.

Purpose of Hole:
Locate Fault. Grout Fault Zone.

Hole Proposed by:	V. Middlemass		Date 23/11/72
Surveyed in by:	K.I.S.		Date 23/11/72
Proposed:	E		N
Surveyed:	E		N
Actual from which Drilled:	220 135.868 E	566 698.147	N
Reduced Level of Collar:	111.976 G/L	111.505 m	
Bearing:-	- Grid	-	Magnetic
Inclination:-	Vertical	degrees	
Target; depth:		ft.	
Planned depth:		ft.	
Actual Depth:	30.48 m	~~ft~~	
Date Commenced:	25/11/72		
Date Completed:	10/12/72		

Wedges Placed:
Nil

Extensions
(if any)

Checked: M. Danielson

Summary Result:

Remarks:

DRILL LOG DDH: 362 B

0 - 14.33

No core.

- 26.0

Abundant clay on joint planes. Otherwise a pale grey green actinolite rich meta volcanic.

26.0 - 30.48

Moderate to fresh volcanics. Jointing low to moderate.

E.O.H. 30.48 metres.

GEOPEKO LIMITED

D.D.H. No.: 362 C

Location:

On line of Decline, No. 3 Orebody.

Purpose of Hole:

Grout fault zone.

Hole Proposed by:	V. Middlemass		Date 23/11/72
Surveyed in by:	K.I.S.		Date 23/11/72
Proposed:	E		N
Surveyed:	E		N
Actual from which Drilled:	220 137.369E	566 693.809	N
Reduced Level of Collar:	111.614	G/L 111.467 m	
Bearing:-	-	Grid -	Magnetic
Inclination:-	Vertical	degrees	
Target; depth:		ft.	
Planned depth:		ft.	
Actual Depth:	17.37 m	ft.	
Date Commenced:	25/11/72		
Date Completed:	10/12/72		

Wedges Placed:

Nil

Extensions (if any)

Checked: M. Danielson

Summary Result:

Remarks:

Hole abandoned at 17.37 metres after approximately 700 bags of cement poured down hole in attempt to grout. No pressure could be maintained in grouting

DRILL LOG DDH: 362 C.

0 - 15.54

No Core.

15.54 - 17.37

Grey green actinolite rich volcanic. Abundant clay on joint planes.

E.O.H. 17.37 metres.

GEOPEKO LIMITED

D.D.H. No.: 362 D

Location:
On line of Decline.
No. 3 Orebody.

Purpose of Hole:
Grout fault zone.

Hole Proposed by:	V. Middlemass	Date	23/11/72
Surveyed in by:	K.I.S.	Date	23/11/72
Proposed:	E	N	
Surveyed:	E	N	
Actual from which Drilled:	220 133.319E	566 692.648	N
Reduced Level of Collar:	111.179	G/L 111.045	
Bearing:-	Grid	Magnetic	
Inclination:-	Vertical	degrees	
Target; depth:		ft.	
Planned depth:	[illegible] m	~~ft.~~	
Actual Depth:	13.41 m	~~ft.~~	
Date Commenced:	25/11/72		
Date Completed:	10/12/72		

Wedges Placed:

Nil

Extensions (if any)

Checked: M. Danielson

Summary Result:

Remarks:

DRILL LOG DDH: 362 D

0 - 12.19

No core.

12.19 - 13.41

Core is volcanic but little better than rubble. Abundant orange clay.

E.O.H. 13.41 metres

GEOPEKO LIMITED

D.D.H. No.: 362 E

Location:
On line of No. 3 Orebody decline.

Purpose of Hole:
Grouting of No. 3 Orebody decline.

Hole Proposed by:	V. Middlemass	Date	1/ 1/73
Surveyed in by:	K.I.S.	Date	/ /
Proposed:	Not proposed E		N
Surveyed:	Not surveyed E		N
Actual from which Drilled:	220 136.43 E	566 696.46	N
Reduced Level of Collar:	111.50 m		
Bearing:-	Nil Grid		Magnetic
Inclination:-	Vertical degrees		
Target; depth:		ft.	
Planned depth:		ft.	
Actual Depth:	27.74 m.	~~ft.~~	
Date Commenced:	10/1 /73		
Date Completed:	24/1 /73		

Wedges Placed:

Extensions (if any)

Checked: M. Danielson

Summary Result:

Remarks:

DRILL LOG DDH: 362 E.

No core to 15.24 metres.

Core is a grey, green, actinolite rich metavolcanic, strongly jointed with clay on all joint planes. Some minor chlorite appearing.

Core is badly broken and of all the core recovered only 95 cms is in lengths greater than 10 cms.

20.42 - 27.74 1.52 metres lost.

E.O.H. 27.74 metres.

GEOPEKO LIMITED

D.D.H. No.: 362 F

Location:

On line of No. 3 Orebody decline.

Purpose of Hole:

Grouting of No. 3 Orebody decline.

Hole Proposed by:	V. Middlemass		Date	1/1/73
Surveyed in by:	K.I.S.		Date	/ /
Proposed:	Not proposed	E		N
Surveyed:	Not surveyed in	E		N
Actual from which Drilled:	220 133.7	E	566 696.66	N
Reduced Level of Collar:	111.45 m			
Bearing:-	Nil	Grid		Magnetic
Inclination:-	Vertical	degrees		
Target; depth:			ft.	
Planned depth:			ft.	
Actual Depth:	28.96 m		~~ft~~.	
Date Commenced:	10/1/73			
Date Completed:	24/1/73			

Wedges Placed:

Extensions (if any)

Checked: M. Danielson

Summary Result:

Remarks:

DRILL LOG DDH: 362 F

No core to 14.32 metres.

Core is then a typical grey green actinolite rich metavolcanic. Very strongly jointed and much core is only rubble.

Only 2.74 metres of core was recovered in total, of which only a 18 cms piece was the only core greater than 10 cms in length.

E.O.H. 28.96 metres.

Depth Interval	Rock Quality Designator	Stability Index	Fractures / metre	Core loss %	Broken core % (Core <7.5 cms)
0 - 8.08	50.4	15.9	+ 20	30.0	47.6
8.08 - 18.34	70.4	7.4	8	2.5	28.0
18.34 - 53.68	89.1	4.4	4	3.3	9.1
53.68 - 57.80	50.0	12.8	16	10.2	49.0
57.80 - 69.19	93.2	5.4	6	9.6	6.1
69.19 - 71.63	28.9	17.8	+ 20	26.2	71.1

The above table indicates the following points:

1. 0 - 8.08 m .Very poor ground where steel sets will be the required level of tunnel support.

2. 8.08 - 18.34 m Ground conditions improving. It will probably be possible to reduce the level of support to rock bolts during this interval.

3. 18.34 - 53.68 m Very good ground. Minor rock bolting.

4. 53.68 - 57.80 m Poor ground. Extensive rock bolting and meshing or steel sets may be required.

5. 57.80 - 69.19 m Good to very good ground. Rock bolting should be sufficient tunnel support.

6. 69.19 - 71.63 m Very poor ground. Steel sets required.

M. J. DANIELSON.

INTER - OFFICE MEMO

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M. C. Rogers.

M **M. J. Danielson.**

Date **1st October, 1973.**

IES **M. Baker.**
V. Middlemass. Mt Morwood
R. Sahlstedt.

DDH 366 - Bold Head Decline.

The following is a brief summary of DDH 366 drilled ahead of the decline face to test rock conditions.

Collar Co-ordinates:	**566890.25 N** I.S.G. 10292.21 N BHMG **220223.63 E** I.S.G. 40272.63 E BHMG.
R.L.:	**+ 53.48 m** RL 1053.48 m
Bearing:	**359° 05' 45" I.S.G.** 17° 32 BHMG
Inclination:	**- 8°** -8°
Drilling period:	**28th - 30th September, 1973.**
Core Size:	**0 - 2.74 m 3.4 cms dia.** **2.74 - 71.63 m 2.4 cms dia.**
Survey Result:	**Not surveyed.**
Total Depth:	**71.63 m**
Rock Type:	**A fresh grey massive, vesicular actinolite rich metavolcanic. Fractures are mostly chlorite filled but occasionally filled with clay and carbonate.**

..../2

M. C. Rogers

CM M. J. Danielson

17th July, 1973.

DDH 365 - BOLD HEAD DECLINE

The following is a brief summary of DDH 365 drilled down the centreline of the decline to test rock conditions.

Collar co-ordinates:	566821.7 N 220221.6 E (ISC.	10231.82 N 40249.02 E (BHMG.
R.L.	:	+ 62.6 m RL 1062.6m
Bearing	:	359° 05' 45" I.S.G. 017° 32' BHMG.
Inclination	:	- 8°
Drilling period	:	14 - 15 July, 1973.
Core size	:	0 - 3.35 3.4 cms dia. 3.35 - 64.31 2.4 cms dia.
Survey result	:	Not surveyed.
Total depth	:	64.31 m
Rock Type	:	A fresh grey massive, vesicular actinolite rich metavolcanic. Fractures are mostly chlorite filled, occasionally clay filled.

..../2

Depth Interval	Rock Quality Designator	Stability Index	Fractures / metre	Core loss %	Broken core % Core <7.5 cms
0-13.87	27.2	15.6	15	20.2	65.8
13.87-16.31	77.7	8.0	12	1.6	20.8
16.31-41.15	82.9	4.7	3	2.1	15.3
41.15-64.31	52.9	9.8	9	6.7	43.3

The above table clearly illustrates that the best ground exists in the zone 16.31 - 41.15 metres. The parameters measured in this zone agree very closely with a 30 metre zone tested by DDH 363 (memo to M. C. Rogers 21.3.73) where mining conditions improved to the extent that the level of tunnel support was reduced to rock bolts and mesh over an 8 metre section. It seems reasonable to assume that it may be possible to reduce the level of support again within the next couple of weeks.

It was expected that DDH 365 would test the possible fault zone detected from aerial photographs. Some very poor ground and fault gouge was intersected at 10.90 metres and between 7.9 and 13.9 metres there was 1.4 metres of core lost. If this zone of bad ground does represent the fault indicated then it is 20 metres south of the surface trace which would imply a southerly dipoof 70°.

M. J. DANIELSON
MINE GEOLOGIST.

INTER - OFFICE MEMO

EOPEKO LIMITED

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M. C. Rogers

IOM M. J. Danielson

Date 25th June, 1973.

DDH 364 - BOLD HEAD DECLINE

The following is a brief summary of DDH 364 drilled down the centreline of the decline to test rock conditions.

Collar Co-ordinates:	566791.6 N (ISC) 10209.82 N (BHMC.) 220200.9 E 40219.86 E
R.L:	+ 66.8 m RL1066-8m
Bearing:	36° 15' grid (ISG) 54° 42' BHMC.
Inclination:	- 05° 43'
Drilling period:	16 - 17 June, 1973
Core Size:	
Survey Result:	Not surveyed
Total depth:	22.35 m
Rock Type:	A fresh grey massive vesicular actinolite rich metavolcanic. Fractures are all chlorite filled.

..../2

Depth Interval	Rock Quality Designation	Stability Index	Fractures / metre	Core loss %	Broken Core % Core <7.5 cms
0- 3.35	3	35	+ 20	34	95
3.35- 6.78	26	24	14	18	61
6.78- 7.92	64	11	7	10	10
7.92- 9.14	10	32	+ 20	26	77
9.14-12.50	71	16	12	NIL	22
12.50-14.63	31	28	19	10	57
14.63-22.35	52	16	9	17	33

None of the parameters measured and tabled above indicate rock conditions as good as that intersected in the previous test hole (DDH 363) where 30 metres of core recorded an RQD of 87.3 and a Stability Index of 4.9. The "good" ground in DDH 363 permitted the level of support to be reduced to rock bolts and mesh over a distance of 8.2 metres.

The engineering parameters measured in DDH 364 would indicate that steel sets will be the required support while the decline traverses the ground tested.

By the end of Period 1 the decline will have progressed beyond the ground tested by DDH 364 and consideration should be given to drilling a further test hole. It must be borne in mind that a possible fault zone exists approximately 65 metres ahead of the face at the end of period 13 and advance knowledge of expected ground conditions may be well worth the delay while the hole is drilled.

M. J. DANIELSON
MINE GEOLOGIST.

INTER - OFFICE MEMO

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O **M. C. Rogers**

ROM **M. J. Danielsen**

Date **21st March, 1973.**

DDH 363 - Bald Head Decline.

10163.09 N
40156.73 E
BHP

The following is a brief summary of DDH 363.

Collar Co-ordinates:	566727.3 N 220155.8 E ISA.
R.L.:	+ 71.4 metres RL 1071.4m
Bearing:	36° 15' grid ISA 54° 42' BHMC
Inclination:	- 05° 43'
Drilling period:	17 - 19 March, 1973
Core size:	EX ? 15/16" dia.
Survey result:	Not surveyed
Total depth:	46.02 metres

Rock type: A fresh grey massive vesicular actinolite rich metavolcanic. Fractures are mostly chlorite filled, some carbonate and occasional clay.

Depth Interval	Rock Quality Designator	Stability Index	Fractures / metre	Core loss %	Broken core % (core <7.5 cms)
0 - 5.93	51.6	13.5	14	31	42
5.93 - 13.10	8.6	25.8	+ 30	37	91
13.10 - 16.30	28.9	14.6	18	9	62
16.30 - 46.20	87.3	4.9	4	3	13

.../2

From the above table it is apparent that there is a marked improvement in rock quality beyond 16.30 metres.

Using a table derived by Ege, J. R. (Stability Index for Underground Structures in Granitic Rock) the R.Q.D. and S.I. figures for the interval 16.30 - 46.20 imply that there will be no need for tunnel support. It will be interesting to see if this is the case as it would be a valuable aid if any of the above parameters could be related to the various types of tunnel support required (steel sets, rock bolting, shotcreting etc.).

M. J. DANIELSON

Results: Ground conditions improved as indicated and rate of advance of the decline increased during periods 11 and 12.

Conditions improved to the extent that steel sets were replaced by rock bolts as the mean of tunnel support.

The tunnel has now proceeded beyond the zone tested by DDH 363.

end. P. 12.

Rotary Core Drilling
00 - 62.48 diamond bit.

1108.8m
± 108.803m

567 210.009 N
220 035.024 E
ISC

361

10659.21 N
40194.88 E
BHMC

F.30 Triple tube Vertical Ventilation shaft test hole - Bold Head.

CORE SIZE	RUN	DESCRIPTION	CORE LOSS	FRACTURE FREQ. Joints/metre 0 3 6 9 12	CORE RECOVERED	R.Q.D.	STARTS ENDS	DISCONTIN
HW	0 - 12.8	No core.						
	12.8 - 15.44	Volcanic derived orange clay. h = 4 W = 4.			0			
	15.0 - 15.44	Dark grey heavily weathered actinolite rich volcanic h= 3 w = 3			50			
NX	88.8m +	GRANITE Medium to coarse grained. Slightly porphyritic. Good core recovered. Low joint frequency. Joints generally tight with minor clay coatings. Some crystalline clinohumite on occ. joints. Sometimes small solution cavities lined with clinohumite e.g. 47.7.	63.5 mms dia.		94.8 99.3 96.0	89.8	7.11	Minor clay on joint planes.
					93.5 100 100			
HQ					100	89.0	4.11	
	78.8m +				85.5	57.7	6.40	
					100			

Hardness (h)
1. Very hard
2. Hard
3. Intermediate
4. Incompetent

Weathering (w)
1. Unweathered
2. Slightly weathered
3. Moderately weathered
4. Severely weathered

0 - 12.8 Mud as drill fluid
12.8 - 62.48 Water and 10% soluble oil as drill fluid.

CONTRACTORS:
Associated Diamond Drillers Pty. Ltd.,

LOGGED BY: M. J.Danielson

SCALE: 1:1000

DEPTH	ANGLE°
47.06	35
47.79	5
48.30	40
49.60	60
50.00	40
50.55	20
50.65	35
51.42	25
51.60	60
51.82	30
52.80	50
53.20	26
53.55	35
53.90	25
54.30	25 x 3
54.40	32
54.56	42
54.70	50
55.20	17
55.93	55
56.25	26
56.47	57
57.30	38
57.91	25
58.35	48
58.09	50
59.03	40
59.06	18
59.94	53
60.42	20

DIAMOND DRILL HOLE SUMMARY

D.D.H. 361 FINAL DEPTH 62.5 m.

CO-ORDINATES N567,210.009 E220,035.024 RELATIVE LEVEL 108.80m.

DATE COMMENCED DATE COMPLETED

DATE SURVEYED

LOCALITY: N° 3 OREBODY - VENTILATION SHAFT TEST HOLE

	Footage	Rock Type	Assay Results WO_3%	Joints per Metre 0 / 0–2 / 2–4 / 4–8 / 8–10 / 10–20 / + 20	Joint Direction (Hade)	Fracture	Faulting	Filling	Bedding	Veining
15.0 m.	0	Weathered Volcanics								
		"								
		"								
					26°, 40°	how		Minor clay		
		Granite			20°, 25°, 55°			with some crystalline		clinohumite
					35°, 55°, 20°			clinohumite		
					35°					
					25°, 50°, 55°					
					30°, 55°, 60°					
					65°					
					45°, 50°					
25.0 m	10				35°, 55°, 65°					
					20°, 28°, 45°, 55°					
					25°, 30°, 40°, 55°					
					15°, 20°, 35°					
					25°					
					24°					
					15°, 25°, 55°					
					27°, 30°					
					15°, 47°					
					20°, 35°, 30°, 45°					
35.0 m	20				10°, 42°					
					20°, 25°, 50°					
					10°, 65°					
					45°					
					30°, 60°, 65°					
					68°, 80°					
					70°					
					45°, 60°					
					14°					
45.0 m.	30				45°					

MACHINE | CORE BARREL DESIGN | ORIENTATION | SITE

DRILL PROGRESS	CASING	DEPTH	R.L.	DESCRIPTION	CORE SIZE	FRACTURE LOG Joints/Metre 3 6 9	CORE RECOVERY	R.Q.D.	STABIL. INDEX	DISCONTIN
		55	& 48.8m				100			
							100	72.4	5.94	
							98.7			
							100			
		60					99.4			
							99.7	94.1	3.56	

EXPLANATION

REMARKS

DDH 361

Record of major joint directions measured with respect to the long axis of the core.

DEPTH	ANGLE°	DEPTH	ANGLE°	DEPTH	ANGLE°
16.77	26	24.94	55	33.93	35
16.90	40	25.18	20	34.26	42
17.15	25	25.31	55	34.70	10
17.32	25	25.55	45	35.05	50
17.60	35	25.70	25	35.25	20
17.87	20	26.24	40	35.50	25
18.03	35	26.51	55	35.60	25
18.25	55	26.31	25	36.50	10
18.59	20	26.65	30	36.88	65
19.00	35	27.13	20	37.10	45
19.54	35	27.43	15	38.00	30
19.60	35	27.88	35	38.25	60
20.20	35	28.44	25	38.70	65
20.36	25	28.90	25	39.25	80
20.53	50	29.73	24	39.40	80
20.91	55	30.10	15	39.54	80
21.10	60	30.45	25	39.63	80
21.18	30	30.78	55	39.96	68
21.34	55	31.50	27	40.44	70
21.72	30	31.65	30	41.46	60
22.53	65	32.15	15	41.66	45
23.00	45	32.75	47	43.50	14
23.73	50	33.00	20	44.65	45
24.02	35	33.20	30	45.20	30
24.32	65	33.33	45	45.95	18

MACHINE | CORE BARREL DESIGN | ORIENTATION | SITE

DRILL PROGRESS	CASING	DEPTH	R.L.	DESCRIPTION	CORE SIZE	FRACTURE LOG Joints/metre 3 6 9	CORE RECOVERY	R.Q.D.	STABIL. INDEX	DISCONTIN.
							100			
							100			
							100			
		35					94.1			
							96.1			
							100			
		40	& 68.8m				100			
							100			
							98.0			
							100			
		45					100			
							100			
							98.0			
		50	& 58.8m				100			
							94.8	89.3	3.53	

EXPLANATION

REMARKS

No noticeable fluid loss to 45m.
45 - 62.48m approximately 40% fluid loss.

DIAMOND DRILL HOLE SUMMARY

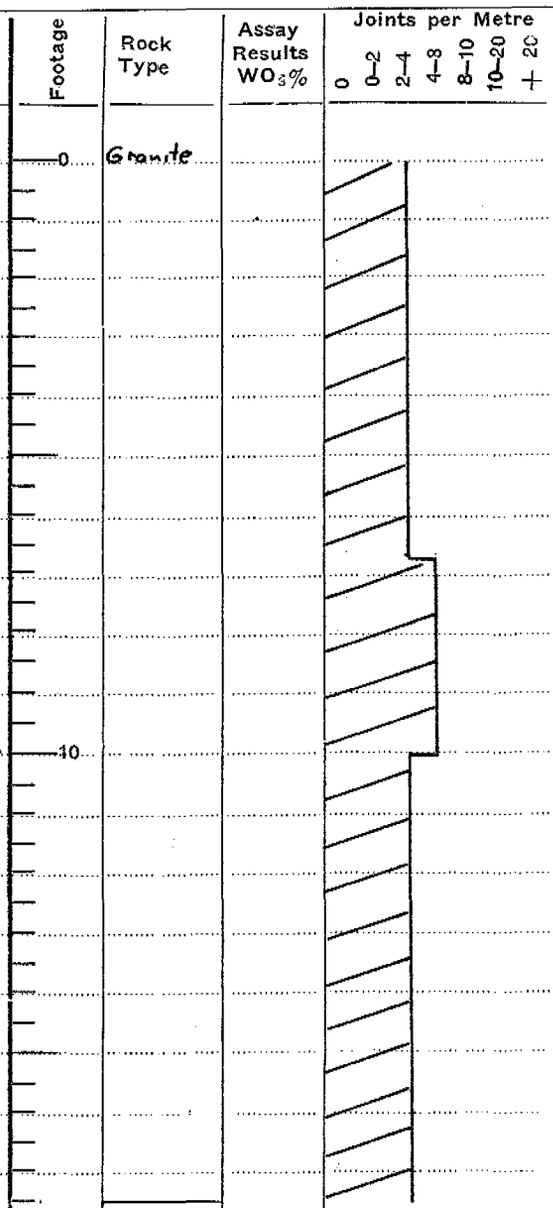
D.D.H. 361 FINAL DEPTH 62.5 m.

CO-ORDINATES N567210.009 E220035.024 RELATIVE LEVEL 108.80

DATE COMMENCED DATE COMPLETED

DATE SURVEYED

LOCALITY: Nº 3 OREBODY.



Footage	Rock Type	Assay Results WO_3%	Joint Direction (Hade)	Fracture	Faulting	Filling	Bedding	Veining
45.0m 0	Granite		18°, 30°	low		Minor clay with some crystalline clinohumite		
			5°, 35°					
			40°					
			60°					
			20°, 35°, 40°					
			25°, 30°, 60°					
			50°					
			25°, 35°					
55.0m. 10			25°, 32°, 60°					
			17°, 55°					
			26°, 57°					
			25°, 38°					
			50°					
			18°, 40°, 55°					
			20°					
	E.O.H.							
20								
30								

00-8.55 tungsten insert bit
8.55-57.20 diamond bit

+ 115.42 m
111.5.42 m

566 850 N
220 246 E } ISA

360

MACHINE: F 30

CORE BARREL DESIGN: Stationary double tube

ORIENTATION: Vertical

SITE: 10250.95 N, 40281.12 E (BHMC)
On line of decline to NO 3 Orebody

DRILL PROGRESS	CASING	DEPTH	R.L.	DESCRIPTION	CORE SIZE	FRACTURE LOG Joints/m .5 1.0 1.5	CORE RECOVERY	R.Q.D.	STABIL. INDEX	DISCONTIN
				Orange brown weakly consolidated clay. No structures vis. h = 4 w = 4	HW 76.2 mms dia.		29.8			
				Isolated floaters of grey massive volcanic up to 26 cms long h = 2 w = 2			85.7			
		5					86.8			
							70.2	16.0		Abundant clay on joint planes. Limonite staining.
22.3.72		10	+105.4	Penetratively weathered grey massive weakly vesicular actinolite rich metavolcanic. Strong jointing with abundant clay on joint planes. h = 2 w = 2 to 3			92.1			
				Completely weath. metavolcs. h = 3 w = 3			76.9			Very heavy fracture
				Penetratively weathered. h = 2 w = 2			98.0			
				h = 3 w = 3			94.6			
					HQ 63.5 mms dia.		86.9			
		15		Penetratively weathered h = 2 w = 2			85.3			
							100			Very heavy fracture
				Completely weath. Structures vis. High clay content. h = 3 w = 3			88.8			
							94.4			
23.3.72							79.3			
				h = 2 w = 2 19.70 Vesicular texture dominant.			93.0			
		20	+95.4				57.8			
							100			
				Completely weath. h = 3 w = 3						

EXPLANATION

Hardness (h)
1. Very hard
2. Hard
3. Intermediate
4. Incompetent

Weathering (w)
1. Unweathered
2. Slightly weathered
3. Moderately "
4. Severely "

REMARKS
Mud as drill fluid.
No noticeable fluid loss at any time.

CONTRACTOR. Associated Diamond Drillers Pty Ltd.

LOGGED BY. M.J.Danielson

SCALE 1 / 100

DRILLING METHOD	GROUND LEVEL	COORDINATES	DDH No.
00 - 8.55m tungsten insert 8.55 - 57.20 diamond bit.	+ 115.42 m	566 850 N 220 246 E	360

MACHINE	CORE BARREL DESIGN	ORIENTATION	SITE
F 30	Stationary double tube	Vertical	On line of decline to NO 3 orebody.

DRILL PROGRESS	CASING	DEPTH	R.L.	DESCRIPTION	CORE SIZE	FRACTURE LOG Joints/m 5 10 15	CORE RECOVERY	R.Q.D.	STABIL. INDEX	DISCONTIN
							59.2			
				High clay content. Structures still vis.			78.3	28.4	15.9	Clay dominant on joint planes but chlorite beginning to appear.
							92.4			
		25					96.7			
				Faintly weathered to fresh grey vesicular actinolite rich metavolcanic. h = 1 to 2 w = 1 to 2			92.1			
							97.8			
							82.0			
										Very heavy fracture
		30	+85.4		HQ 63.5 mms dia.		92.1	34.9	12.3	Chlorite is now major joint filling.
							100			
							98.0			
							100			
		35					88.9	75.1	6.3	
							100			
							92.1			
							95.5			
		40	+75.4	Fresh grey massive non laminated vesicular actinolite rich metavolcanic.			93.4			Joints chlorite coated.
							98.1			
							84.9	54.7	10.6	

EXPLANATION

REMARKS

DRILLING METHOD | GROUND LEVEL | COORDINATES | HOLE NO.

MACHINE | CORE BARREL DESIGN | ORIENTATION | SITE

DRILL PROGRESS	CASING	DEPTH	R.L.	DESCRIPTION	CORE SIZE	FRACTURE LOG 5 10 15	CORE RECOVERY	R.Q.D.	STABIL. INDEX	DISCONTIN
		45					100			
							100			
							98.1			Chlorite and minor carbonate on joint planes.
		50					98.1			
							94.3			
				Penetratively weath greenish grey volc. Texture is now agglomeratic and degree of weathering slightly higher.			98.7			Limonite staining on joint planes.
							96.7			54.1 m. Level of roof of decline
		55					100			
28·3·72			+ 58·22				100	84.8	5.3	

57.20 m E.O.H.

EXPLANATION

REMARKS

PENETRATION RATES

DDH 360

Interval	Rate (metres/hour)
8.53 - 9.44	3.90
9.44 - 10.06	4.65
10.06 - 10.46	3.00
10.46 - 11.58	3.53
11.58 - 12.75	2.92
12.75 - 14.02	2.72
14.02 - 14.63	3.32
14.63 - 16.15	2.94
16.15 - 16.87	2.70
16.87 - 17.68	3.24
17.68 - 18.97	2.97
18.97 - 19.61	3.49
19.61 - 20.73	3.20
20.73 - 22.25	3.64
22.25 - 22.85	3.60
22.85 - 23.77	3.68
23.77 - 25.30	2.96
25.30 - 26.82	3.14
26.82 - 27.74	3.25
27.74 - 28.35	3.66
28.35 - 29.86	2.92
29.86 - 31.39	3.16
31.39 - 32.92	3.16
32.92 - 34.44	2.94
34.44 - 35.97	3.27
35.97 - 37.49	3.04
37.49 - 39.01	3.25
39.01 - 40.34	3.07

PENETRATION RATES

DDH 360

Interval	Rate (metres / hour)
40.34 - 41.86	3.37
41.86 - 43.41	3.44
43.41 - 43.94	3.97
43.94 - 44.90	3.03
44.90 - 46.48	3.27
46.48 - 48.06	2.87
48.06 - 49.63	2.77
49.63 - 51.20	2.94
51.20 - 52.73	2.86
52.73 - 54.25	3.04
54.25 - 55.78	2.96
55.78 - 57.20	2.94

DDH 360

Record of major joint directions measured with respect to the long axis of the core.

Depth	Angle
7.10	10 60
7.60	45
8.00	45
8.10	45
8.20	57
8.50	10
8.70	30
9.00	55
9.60	22
10.00	0 20
10.20	65
10.50	15
11.50	50
11.60	30
11.65	50
11.93	50
12.23	25
12.70	10
13.50	2 x 20 50
14.00	25
14.30	25
14.60	35
14.98	0 45
15.30	0 30
15.55	0
15.80	50
16.10	25
16.20	0
16.45	15 68
16.70	5

17.00	45	
17.10	45	
17.40	60	
17.45	60	
17.83	45	
17.90	18	
18.10	65	
18.30	35	
18.40	60	
18.50	50	
18.60	20	
18.95	20	
19.30	55	
19.35	55	
19.70	0	
20.10	25	
20.15	60	
20.50	70	
20.70	0	
21.00	50	
21.20	25	
21.25	25	
21.40	10	
22.35	30	65
22.85	20	65
23.25	25	
23.50	25	
23.65	40	
24.00	15	
24.12	65	
24.35	65	
24.50	5	
24.60	65	
24.75	0	
25.25	40	
25.80	60	

26.00	25	
26.35	60	
26.55	55	
26.80	70	
26.90	65	
27.10	25	35
27.20	55	
27.35	70	
27.55	35	
27.60	45	
27.75	45	
28.15	0	
28.35	70	
28.50	80	
28.60	0	
29.00	55	
29.15	20	
29.30	60	
29.40	27	
29.72	0	40
29.90	5	
30.00	75	
30,25	65	
30.45	80	
30.85	60	
30.90	30	
32.20	25	35
32.40	45	
32.45	45	
32.80	20	
33.45	35	
33.65	70	
34.45	55	
35.00	65	
35.15	50	
35.90	65	

36.00	70
36.50	55
36.60	40
36.70	35
36.80	35
37.40	15
37.60	50
37.90	55
38.00	35
38.30	30.60
38.35	30
38.60	2 x 30
38.75	40
39.00	55
39.30	35 50
39.45	20
39.80	20
40.00	30
40.10	55
40.30	48
40.65	60
40.80	60
41.85	58
42.15	55
42.30	0
42.55	30
43.00	15 25
43.60	35
43.70	35
44.00	60
44.25	50
44.30	25
44.50	60
44.75	35
44.90	2 x 35 40
45.15	50

45.70	25	50
45.75	35	
46.40	35	
46.95	65	
47.03	60	
47.14	60	
47.20	60	
47.65	55	
48.10	55	
48.25	30	35
48.70	20	
49.00	10	
49.20	10	
50.00	50	
50.90	20	
51.30	27	
51.75	38	
52.00	30	
52.40	35	
52.73	55	
52.85	55	
53.00	0	
53.40	70	
54.60	20	
55.20	25	
55.40	20	
55.70	25	42
55.80	25	
56.30	50	
56.60	20	
56.90	50	

DIAMOND DRILL HOLE SUMMARY

D.D.H. 360 FINAL DEPTH 57.20m.

CO-ORDINATES N 566,850 E 220,246 RELATIVE LEVEL 115.42 m.

DATE COMMENCED DATE COMPLETED

DATE SURVEYED

LOCALITY: ON LINE OF DECLINE TO Nº 3 OREBODY

	Footage	Rock Type	Assay Results WO₃%	Joints per Metre (0 / 0–2 / 2–4 / 4–8 / 8–10 / 10–20 / + 20)	Joint Direction (HADE)	Fracture	Faulting	Filling	Bedding	Veining
7.0m	0	Penetratively weathered vesicular metavolcanics						Abundant clay + limonite staining		
					10°, 45°, 60°	High				
					45°, 57°, 10°, 30°	"		"		
					55°, 22°	Very high		"		
		Penetratively to completely weathered vesicular metavolcanics			0°, 15°, 20°, 65°	High		"		
					50°, 30°	"		"		
					10°, 25°	"		"		
					20°, 50°	"		"		
					0°, 25°, 35°, 45°	"		"		
					0°, 30°, 50°	Very High		"		
17.0m	10				0°, 5°, 15°, 25°, 68°	High		"		
					45°, 60°	"		"		
					35°, 50°, 60, 65°, 20°	"		"		
					0°, 55°	"		"		
					0°, 25°, 60, 70°	"		"		
					10°, 25°, 50°	"		"		
					20°, 25°, 30°, 65°	"		Clay dominant but chlorite beginning to appear.		
		Fresh or faintly weathered vesicular metavolcanics			25°, 40°	"				
					0°, 5°, 15°, 65°	"		"		
					40°, 60°	"		"		
27.0m	20				25°, 55°, 60°, 65°, 70°	"		"		
					25°, 35°, 45° 55°, 70°	Very High		"		
					0°, 70°, 80°	"		"		
					0°, 5°, 20, 27 40°, 55°, 60°	"		Chlorite is dominant. Minor clay.		
					60°, 65°, 75°, 80°, 3:0	Moderate				
						"		"		
					20°, 25° 35°, 45°	"		"		
					35°, 70°	"		"		
					55°	"		"		
					50°, 65°	"		"		
37.0m	30				35°, 40°, 55°, 70°	High		"		

DIAMOND DRILL HOLE SUMMARY

D.D.H. 360 FINAL DEPTH 57.20m.

CO-ORDINATES N 566850 E 220246 RELATIVE LEVEL 115.42m.

DATE COMMENCED DATE COMPLETED

DATE SURVEYED

LOCALITY: On line of decline to No 3 Orebody

	Footage	Rock Type	Assay Results WO_3%	Joints per Metre (0 / 0–2 / 2–4 / 4–8 / 8–10 / 10–20 / + 20)	Joint Direction (Hade)	Fracture	Faulting	Filling	Bedding	Veining
37.0m.	0	Fresh or faintly weathered vesicular metavolcanics			15°, 50°, 55°	Moderate – Low		Chlorite is dominant		
					30°, 35°, 40°, 60°	"		"		
					20°, 35°, 50°, 55°	"		"		
					30°, 55°, 48°, 60°	"		"		
					58°	"		"		
					0°, 30°, 55°	"		"		
					15°, 25°, 35°	"		"		
					60°, 50°, 25° 35°, 40°	"		"		
					50°, 25°, 35°	"		"		
47.0m.	10				35°, 65°	"		"		
					55°, 60°	"		Chlorite and minor carbonate		
					20°, 30°, 35°, 55°	"		"		
					10°	"		"		
					20°, 50°	"		"		
					27°, 38°	"		"		
		Reactratively weathered agglomeratic metavolcanics			30°, 55°, 55°	"		Chlorite		
					0°, 70°	"		"		
					20°	"		"		
					20°, 25°, 42°	"		"		
57.0m.	20				20°, 50°	"		"		
		E.O.H.								
	30									

DRILLING METHOD	GROUND LEVEL	COORDINATES	DDH No.
Rotary Core Drilling 00 - 12m tungsten insert 12 - 38.1m diamond bit	+ 112.15 m	566 710 N 220 145 E	359

MACHINE	CORE BARREL DESIGN	ORIENTATION	SITE
F 30	Stationary double tube	Vertical	On line of decline to No 3 Orebody. 10150.09 N 40141.01 E BHMC.

DRILL PROGRESS	CASING	DEPTH	R.L.	DESCRIPTION	CORE SIZE	FRACTURE LOG Joints/m 10 20 30	CORE RECOVERY	R.Q.D.	STABIL. INDEX	DISCONTIN
				Orange brown structureless clay. h = w = 4 Occasional floaters of a penetratively weathered grey massive actinolite chlorite rich METAVOLCANIC.	NXCC 72.1 mms		26.3			Joints are all clay filled and limonite stained.
11.3.72		5					10.0			
							87.5			
							98.7			
				Completely weath. orange brown gritty clay. Occasional joint planes distinguishable. h = 3 w = 3 - 4			88.8			
			+102.15				98.0			
		10					100			
				~~Major core loss~~			75.1			
				Semi consolidated orange clay. h = 4 w = 4	63.5 mms dia.		18.4			
		15		Highly weathered metavolcs. H=w=3.			92.1			
13.3.72				Penetratively weath grey vesicular actinolite rich metavolcanic. h = 2 w = 2	HQ		95.4	57.2		
							94.8	39.8		
			+92.15				65.5	15.5		
		20								
				Complete. Weath. h = 4 w = 4			98.7	59.3	9.4	

EXPLANATION

Hardness (h)
1. Very hard
2. Hard
3. Intermediate
4. Incompetent

Weathering (w)
1. Unweathered
2. Slightly weathered
3. Moderately "
4. Severely "

REMARKS

Mud as drill fluid. No noticeable fluid loss at any time.

Contractor. Associated Diamond Drillers Pty Ltd.

Logged by: M.J.Danielson

Scale: 1 : 100

DRILLING METHOD	GROUND LEVEL	COORDINATES	DDH No. 359
MACHINE	CORE BARREL DESIGN	ORIENTATION	SITE

DRILL PROGRESS	CASING	DEPTH	R.L.	DESCRIPTION	CORE SIZE	FRACTURE LOG 10 20 30	CORE RECOVERY	R.Q.D.	STABIL. INDEX	DISCONTIN
14.3.72		25		High to complete. weath. h = w = 3-4						Very heavy fracture
							70.4	16.0	18.6	Chlorite begins to appear on joint faces. Clay decreasing.
										Very heavy fracture
				Faintly weath. Little clay in volc. matrix being mainly confined to joint planes. Abundant chlorite.						Joints clay/chlorite coated.
		30	+82.15				97.2	55.9	7.3	
15.3.72					HQ 63.5 mms dia.					Very heavy fracture
		35								Abundant Chlorite on joint planes.
							82.6	22.5	13.3	
16.3.72		38	+74.05				98.9	63.8	7.8	
				38.10M E.O.H.						Note: Floor of decline at R.L. +74 m.

EXPLANATION	REMARKS

PENETRATION RATES

DDH 359

Interval	Rate (metres/hour)
19.68 - 21.21	2.48
21.21 - 21.86	2.17
21.86 - 22.28	2.80
22.28 - 22.73	3.00
22.73 - 23.65	2.51
23.65 = 24.08	2.34
24.08 - 25.68	2.37
25.68 - 27.23	3.21
27.23 - 28.83	2.18
28.83 - 30.25	2.18
30.25 - 30.94	2.08
30.94 - 31.85	2.18
31.85 - 32.59	2.61
32.59 - 33.17	2.17
33.17 - 33.40	3.45
33.40 - 34.57	2.51
34.57 - 36.14	2.00
36.14 - 37.01	2.27
37.01 - 38.10	2.51

DDH 359 Appendix

Fracture Log

Depth	Fracture Angle - measured with respect to long axis of core.
6.16	32
6.50	20 41
7.30	25 30 0
7.40	61
7.66	70
7.75	20 45
7.90	30
8.05	2 x 35
8.42	52
9.00	17 25
9.50	45
9.75	15
10.50	52
10.67) 10.80)	4 x 52
10.90	70
11.40	40
11.45	62
13.59	25
13.60) 13.75)	4 x 75
13.84	52 15
14.10	70
14.70	2 x 45
14.80	2 x 30
15.12	25
15.30	15
15.66	58

15.78	58
16.00	40
16.10	60
16.23	15
16.33	15. 40
16.83	35
16.95	0 32
17.15	10 2 x 40
17.45	50
17.50	45
17.60	30
17.65	0
17.90	80
18.00	5
18.20	60
18.25	0
18.50	46
18.60	5 70
19.00	65
19.05	50
19.15	80
19.00 19.65	0
19.50	12 30 45
19.88	30 45
20.00	10
20.10	30
20.70	27
20.92	27
22.30	5
22.47	80

22.55	80
22.70	80 55
22.85	5 20
23.15	2 x 27
23.35	61
23.90	22 41
24.10	40 20
24.40	40
24.50	10
24.70	75
24.85	58 25
25.00 26.00	2 x 0
25.88	75
26.05	60
26.36	52
26.65	15
26.90	45 20 2 x 15
27.10	15 2 x 35
27.25	15
27.50	16 35
27.75	60
27.90	55
28.15	58
28.30	58
28.50	25
28.65	35
28.75	50
28.85	37
29.00	75
29.29	60
29.34	75
29.59	55

29.70	20 35
29.90	2 x 45
30.00	45
30.30	2 x 20
30.35	40
30.43	34
30.55	20
30.60	5 75
31.00	2 x 65
31.20	0 35 45
31.33	40
31.47	60
31.60	5 30
31.78	60
31.85	30
32.00	20
32.10	25
32.20	0
32.40	55
32.50	2 x 51
33.20	20
33.40	55
33.52	45
33.70	5 55
33.90	3 x 15
34.05	38
34.20	30 62
34.40	26 45
34.50	32
34.70	0 35 45 50
35.00	60
35.18	60

35.37	80
35.80	20
36.00	0 25
36.15	20
36.36	75
36.50	15
36.55	35
36.70	0
37.05	70
37.35	2 x 20
37.40	35
38.00	0 52

DIAMOND DRILL HOLE SUMMARY

SHEET NO 1 OF 1

D.D.H. 359 FINAL DEPTH 38.10m.

CO-ORDINATES N566710 E220145 RELATIVE LEVEL 112.15m.

DATE COMMENCED DATE COMPLETED

DATE SURVEYED

LOCALITY: On line of decline to No 3 Orebody

	Footage	Rock Type	Assay Results WO₃%	Joints per Metre 0 0-2 2-4 4-8 8-10 10-20 20+	Joint Direction (Hade)	Fracture	Faulting	Filling	Bedding	Veining
15.0m.	0	Severely weathered metavolcanics.			15,25,58	High		Clay		
					0,15,32,35 40,60	"		"		
					0,30,10,40 45,50,80	"		"		
					0,5,46 60,70	"		"		
					0,50,65,80 12,30,45	"		"		
					10,27,30	"		"		
						"		"		
					5,80,55	"		"		
					22,27 41,61	"		"		
25.0m.	10				10,20 40,75	"		Clay/ Chlorite		
					75,0 58,25	"		"		
		Faintly weathered metavolcanics			15,45,20,15, 0,60,52	Very High		"		
					15,35,16, 60,55	High		"		
					58,25,35, 50,37	"		"		
					55,60,75 20,35,45	"		Abundant chlorite		
					20,34,40, 45,5,75	Very High		"		
					0,35,45,5 30,40,60,65	"		"		
					0,20,25 51,55	"		"		
					20,45,55 5,15	High		"		
35.0m.	20				0,26,30,35 45,50,62,52	"		"		
					60,80,20	"		"		
					0,20,25 15,35,75	"		"		
					20,35,70 0,52	"		"		
		E.O.H.								
	30									

DRILLING METHOD	GROUND LEVEL	CO-ORDINATES	
Rotary Core Drilling. 00 - 10.67 Tungsten insert 10.67 - 21.11 Diamond Bit.	+ 108.821 m.	220122 E 566670 N } ISC	358

MACHINE	CORE BARREL DESIGN	ORIENTATION	SITE
F 30	Stationary double tube.	Vertical	10119.43N 40106.54E } BHMC On line of decline to No 3 orebody.

DRILL PROGRESS	CASING DEPTH	R.L.	DESCRIPTION	CORE SIZE	FRACTURE LOG Joints/m 1 2 3	CORE RECOVERY	R.Q.D.	STABIL. INDEX	DISCONTIN
7.3.72			Predominantly an orange brown weakly consolidated slightly damp clay. h=w=4. Isolated fragments (up to 26 cms) of a penetratively weathered grey massive vesicular actinolite rich METAVOLCANIC. h= 3 w= 3-4	NXCC 72.1 mms dia.		20.5			Fracture planes are clay coated and organically stained.
	5		4.76 - 5.12 h=w=4 5.12 - 5.32 h=w=2 5.32 Completely weathered orange grey gritty clay. No structures vis. h=w=4 7.00-7.10 Volc frag 7.48-7.57 h=w=2			18.4 67.3	46.9		
						96.7	51.3		
						86.1	82.8		
	10	+98.8	Consol clay. H=w = 4			91.5	51.0		
			h=w=3 h=w=2 h=w=3			99.3	83.0		Joints clay coated and limonite stained.
			Mod.weath.grey massive med.grained actinolite rich vesicular METAVOLCANIC. h=w=2	HQ 63.5 mms dia.		97.4	50.7		
	15					100	82.3		
						98.7	98.7	6.9	
8.3.72			Complete.weath. No structures vis. h = w = 3 to 4			100	76.5	9.9	Joint freq. high.
						92.1	39.5	16.3	
	20	+87.71	Penetratively weath. grey metavolc. as above. h = w = 2			91.5	74.5	9.2	Note: R.L. of floor of decline +80.0m.
9.3.72			h = 1 to 2			100	83.1	8.4	
			21.11 E.O.H.						

EXPLANATION

Hardness (h)
1. Very hard
2. Hard
3. Intermediate
4. Incompetent

Weathering (w)
1. Unweathered
2. Slightly weathered
3. Moderately "
4. Severely "

REMARKS

Mud as drill fluid.
No noticeable fluid loss at any time.

Contractor. Associated Diamond Drillers Pty Ltd

Logged by: M.J.Danielson

Scale: 1 ; 100

DDH 358 Appendix.

Fracture log.

Depth	Fracture Angle - Measured with respect to long axis of core.
2.44	45, 30
2.50	10, 30
4.50	45, 35
4.60	54, 30
4.68	80, 5
4.85	28
4.95	47
5.00	0
5.12	27
5.20	80
5.33	64
5.38	42
5.50	37
5.65	75
7.05	20, 30
7.50	25
10.80) 11.10)	45, 60, 0
11.15	35, 58
11.40	55
11.42	55
11.65	2 x 20
11.80	55
11.95	2 x 45

12.06	45
12.36	60
12.45	40,62
12.48	63,0
12.50	85
12.55	50
12.70	50
12.90	40
13.00	50
13.10	50
13.35	55
13.59	80
13.70	40
13.85	2 x 27
13.96	60
14.10	50
14.27	50
14.56	65
14.70	20
14.75	80
14,85	3 x 42
15.00	5 , 60
15.29	20
15.31	30
15.46	55
15.56	62
15.68	35

15.95	37
16.05	0
16.18	2 x 60 , 30
16.24	2 x 20 , 55
16.44	65
16.60	25
16.80	52 , 0 , 20
17.00	[illegible] 2 x 16
17.10) 17.70	5 , 0 , 20 , 60
17.75	15 , 50 , 75
17.80	80
18.0	15 , 62
18.35	20
18.49	60
18.63	45 , 0
18.75	5 , 16 , 80
18.96	75
19.10	75
19.15	75
19.49	20 , 2 x 75 , 0
19.69	75
19.94) 20.10	5 , 0 , 68 , 0
20.40	70
20.67	42
20.82	50

20.87	80 , 0
20.91	45
21.00	55
21.11	45

Note. Rock Stability Index

> 18	Incompetent rock
< 8	Good rock - requires no support

DIAMOND DRILL HOLE SUMMARY

SHEET NO 1 OF 1

D.D.H. 358 FINAL DEPTH 21.11m.

CO-ORDINATES N 566670 E 220122 RELATIVE LEVEL 108.821m.

DATE COMMENCED DATE COMPLETED

DATE SURVEYED

LOCALITY: On line of decline to No 3 Orebody

	Footage	Rock Type	Assay Results WO3%	Joints per Metre (0 / 0–2 / 2–4 / 4–8 / 8–10 / 10–20 / + 20)	Joint Direction (Hade)	Fracture	Faulting	Filling	Bedding	Veining
11.0m.	0	Moderately weathered vesicular metavolcanics			20°, 35, 45°					
					60°, 0°, 55°	High		clay/limonite		
					0°, 40°, 45°					
					60°, 80°, 85°					
					27°, 40, 55°					
					80°, 50°, 60°					
					20°, 50, 65°					
					60°, 80, 42°					
					50°, 20°, 60°					
					30°, 55, 35°					
					0°, 20°, 30°					
					55°, 60°, 65°	Extreme				
					50°, 0°, 20°					
					5°, 15°, 80°, 75°					
					0°, 15°, 20°, 5°					
					80°, 62°, 45°					
					0°, 20°, 75°					
					5°, 68°					
					70°, 42°, 50°					
21.0m.	10				0°, 80°, 55°, 45°					
		E.O.H.								
	20									
	30									

DIAMOND DRILL HOLE NO. DDH 357

LOCATION: No 3 Orebody

CO-ORDINATES: 110,589.87N. 99,896.01E.

R.L.: 331.26. 100.96 + 3.29 = 104.26 m

DATE COMMENCED: 7th January, 1971

DATE COMPLETED: FEBRUARY 71.

FINAL DEPTH: 47.54 m

DATE SURVEYED: Not Surveyed

LOGGED BY: P Le Messurier.

344.26 ???

DIAMOND DRILL LOG

DRILL HOLE No. DDH 357

FROM	TO	LENGTH	CORE LOSS	ASSAYS	GEOLOGICAL DESCRIPTION
0	42	42	0		No Core recovered.
42 12·8	67	25	-		Sand fine grained butgenerally of granitic composition.
67 20·4	87	20	1		Aplite fine grained siliceous.
87 26·5	92	5	3		Granite medium to coarse grained porphyritic, fairly biotite rich weathered.
92 28·0	112 34·1	20	6		B Volcanics - spotted biotite hornfels chloritised and altered in part.
112	156				Granite medium to coarse grained porphyritic massive well crystallised no major alteration some clay[redacted] and chloritic joints.

DIAMOND DRILL HOLE NO. 356

LOCATION: No. 3 Orebody

CO-ORDINATES: 110, 704.25N 100, 096.36E

R.L.: 338.80 103.25 + 3.3 = 106.55

DATE COMMENCED: 14.1.71

DATE COMPLETED: 28.1.71

FINAL DEPTH: 150 Feet. 45.72 m

DATE SURVEYED: Not Surveyed

LOGGED BY: J.J. Gresham

234-80

FROM	TO	FOOTAGE	CORE RECOVERY	ASSAYS	UNIT	GEOLOGICAL DESCRIPTION	REMARKS
0	40'	40'	Nil		No Core	No Core	
40'	104'	64'	20'		Volcanics	Clay overburnden - Volcanic derived A yellow - brown clay that in places is greenish and highly micaceous and is obviously derived from the Volcanics.	
104'	150	40'	46'		Granite	A very abrupt contact into fairly compact granite. Initially it is a very slightly weathered coarse grained granite. At 119' the nature of the granite changes to the finer grained variety with greenish altered feldspar. Between 136' - 137' the rock is very fine grained and biotite rich . The green feldspar granite phase continues till 146' where it changes to the more normal coarse grained porphyritic type and is like this till 150'.	
						E.O.H.	

DIAMOND DRILL HOLE NO DDH 355

LOCATION: No 3 Orebody

CO-ORDINATES: 110 703·13 N, 99 997·50 E.

R.L.: 334·28' (101.9 / 3.3 / 105.2) ADD 3·3

DATE COMMENCED: 13th January, 1971

DATE COMPLETED: FEBRUARY 71

FINAL DEPTH: 195' (59·4)

DATE SURVEYED: Not Surveyed

LOGGED BY: P Le Messurier

— 151'?

183.28?

GEOPSCO LIMITED, KING ISLAND. DIAMOND DRILL

SHEET No. [illegible] OF [illegible] (2)

DRILL HOLE No. DDH 355

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS	GEOLOGICAL DESCRIPTION	PETROLOGY
	0	42	42	0		No Core recovered.	
	42 (12.8)	45	3	1		Clay orange-brown	
	45 (13.72)	98	53	-		Granite sand and some rock fragments - generally medium to coarse grainsize with typical granite sand composition.	
	98 (29.9)	140	42	38		Granite medium to coarse grained generally weathered with some soft and friable and clayey bands chlorite associated with the biottie (biotite) and some red-brown iron oxides.	
	140 (42.67)	151	11	11		Granite fine to medium grained, highly altered with abundant serricite and chlorite, minor epidate and clinazoisite, very soft in part. with honeycomb structure which suggests leaching. Disseminated coarse grained scheelite and molybdenite.	
	151 (46.02)	195 (59.44)	44	44		Granite coarse grained massive porphyritic well crystallised quartz, feldspar and biotite. Numerous veins of silica carbonate and clinohumite.	
						HOLE COMPLETED 195'	

DIAMOND DRILL HOLE NO. 351

LOCATION: No. 3 Orebody

CO-ORDINATES: 110 410 . 53N 99993.03E

R.L.: 341.30' 104.0 107.3
3.29

DATE COMMENCED: 25/2/71

DATE COMPLETED: 2/3/71

FINAL DEPTH: 40' 12.2

DATE SURVEYED: Not Surveyed

LOGGED BY: J.J. Gresham

13.5'
327.80 ?

	0	10	10'	Nil
	10	13.5	3.5'	3.5'
	13.5	20	6.5	5
	20	30	10	9
	30	40	10	10

No Core.

Highly weathered, limonite rich, granite.
Residual quartz and feldspar ore clearly visible.

Compact core, weathered granite. Stongly weathered kaolinised feldspar.
Rather crumbly weathered granite with white kaolinised feldspars, pink orthoclases, and with the weathered mafics giving a rather greenish appearance
Fairly compact, highly weathered, coarse grained porphyritic granite. Typical of the Bold Head Granite. No scheelite mineralisation was noted.

E.O.H.

DIAMOND DRILL HOLE NO. 350

LOCATION: No 3 Orebody

CO-ORDINATES: 110,496.5N 99,996.7E.

R.L.: 338.6' 103.~ 3.29 106.49 m

DATE COMMENCED:

DATE COMPLETED: 10.1.71

FINAL DEPTH: 288' 878

DATE SURVEYED: ~~FEB, 71~~ .11.1.71

LOGGED BY: P. Le Messurier.

-83'

255.6

DIAMOND DRI

DDH 350

SAMPLE NO.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS				GEOLOGICAL DESCRIPTION	
	0	30	30	0					NO CORE	No core recovered.
	30 9.1	122 37.2	92	65					QUICKSTONE	Quickstone Breccia, a highly fragmented and mobile rock of very mixed composition but relatively abundant quartz, chlorite boitite and pyroxene with clay and micaceous clay matrix. Fragments variable in size and shape but generally show good orientation and marginal flowage structure common. This section is highly weathered and /or altered and fractured solid pieces of core are intersperced through mixed chloritic - limonitic clay. The size and frequency of solid pieces increases after 83'.
	122	142 43·3	20	12'					BIOTITE HORNFELS	Biotite Hornfels, banding reasonably developed, some sections very siliceous and deficient in biotite. Altered and clayey in upper half of unit which is very broken.
	142	152 46·3	10	8'					GRANITE	Granite fine to medium grained, composition fairly constant and normal but for a higher percentage of biotite. Some chloritic alteration.
	152	208 63·4	56	55					B.META VOLCANICS	B. Meta Volcanics fine to medium grained mid green grey feldspathic rock with strong relict doleritic texture. Feldspar show out strongly as white spots in part. Feldspars particularly pronounced adjacent to joints and fractures which show diffusion and marginal alteration. At base unit shows marked increase in biotite and has "query" graditional contact with the underlying unit A few thin granite bands, most prominant ones 175.5' to 176.5 and 198'-199' abundant fine disseminated sulphite, chiefly pyrrhotite and pyrite.
	208	225 68·1	17	17					BIOTITE HORNFELS	Biotite Hornfels fine grained well banded but massive with some irregular and nodular pyroxene rich bands, some with very minor garnet.

FROM	TO	LENGTH SAMPLED	LENGTH RECOV.	ASSAYS	GEOLOGICAL DESCRIPTION
225 68.6	238 72.5	13	13		PYROXENE HORNFELS Pyroxene Hornfels- fine light grey green siliceous rock strongly banded in part and showing an abundance of mobile features irregular coarser grained bands with sulphide accumulates and in irregular blebs.
238	249' 75.9	11	11		GRANITE, medium grained quartz, orthoclase plagioclase and biotite in well crystallised mosaic, texture cloudy in some sections. Disseminated medium to coarse grained scheelite.
249	259.5 79.1	10.5	10		GRANITE, medium to coarse grained massive porphyrite orthoclase, less mica than mineralised units above and below.
259.5	269.5 82.1	10	9		GRANITE, cloudy and in part altered generally serricitised and minor chloritisation- apparently leached in part with numerous small pits and cavities. Disseminated scheelite.
269.5	288	18.5	17		GRANITE, medium and coarse grained massive porphyritic orthoclase, well crystalised and goood mosaic texture. A few very coarse sections and pegmatite veins.
					HOLE COMPLETE 288'

112' - Breccia - 142'

Ap = 142' - 152'

LV

Major fracture 177'

Major fractue 193'

Fault - 197'

Major fracture 230'

GORMACK GRAPH PAPERS : CHRISTCHURCH N.Z. No. 0258 40 x 30 cm. In mm.

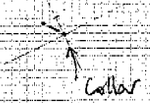
DDH 350

Scale 1:500

Plan view

Total depth : 286' 87.78 m

Survey 15 : 270' 82.3 m



GERMAN GRAPH No. 901/P2A

DIAMOND DRILL HOLE NO. 329

LOCATION: No 3 Orebody

CO-ORDINATES: 110 615.14N 100 296.0E

R.L.: 349.6' 106.6 109.8

DATE COMMENCED: 27th November, 1970

DATE COMPLETED:

FINAL DEPTH: 287' 87.5

DATE SURVEYED: 5th January, 1971.

LOGGED BY: P.Le Messurier

232.6

DDH 329

SAMPLE No.	DRILL FROM	DRILL TO	RECOVERY (METRES)	CORE RUN	CASE	MAP	GEOLOGICAL DESCRIPTION	FRACTURING
	0	87 26.5	87	0		NO CORE	No Core - clay and sand weathered material not recovered.	
	87	100 30.4	13	1			Weathered and altered rock with one piece of granite recovered.	
	100	117 35.7	17	1		QUARTZITE	Quartzite - de silicified to a fine white and brown friable clay.	
	117	130 39.6	13	12		BIOTITE HORNFELS QUARTZITE	Biotite Hornfels/Quartzite a fine grained massive rock with plentiful biotite developed in part, a few thin granite bands.	
	130	140 42.7	10	10		GRANITE	Granite fine grained, fairly mafic rich irregular inclussions and intermixing of biotite hornfels at base.	
	140	153 46.6	13	13		BIOTITE HORNFELS /QUARTZITE	Biotite Hornfels /Quartzite - unit becoming more siliceous with depth.	
	153	187 57.0	34	33		QUARTZITE	Quartzite fine grained massive, micaceous in part with biotite wisps and blebs. Pyrite common on joints. Some irregular swirl and flow patterns in some sections which develope grantic type texture.	
	187	206 62.8	19	19			Quartzite micaceous - fine grained essentially massive and uniform. Micaceous zones show irregular mobile patterns and grade in part to quartz mica zones of grantic texture. These zones increase toward the base of the unit where farily massive mobility and re-texturing is evident.	
	206	287	81	71		GRANITE	Granite-composition and texture very variable from quartz rich graphic aplite 206-312, biotite rich mixed cloudy textured fine granite/aplite 312'-216. Normal medium grained orthoclase granite porphyritic in part to 228. Thence a band of strong epidotisation 231. Thence normal medium to coarse grained granite to 254.	

254-265 very altered to serricite and abundant epidote, marked increase in Fe/Mg minerals generally fine grained cloudy texture clayey joints common.

265-287- Granite medium to coarse grained porphyritic orthoclase in part, very minor chlorite and epidote.

HOLE COMPLETED AT 287'

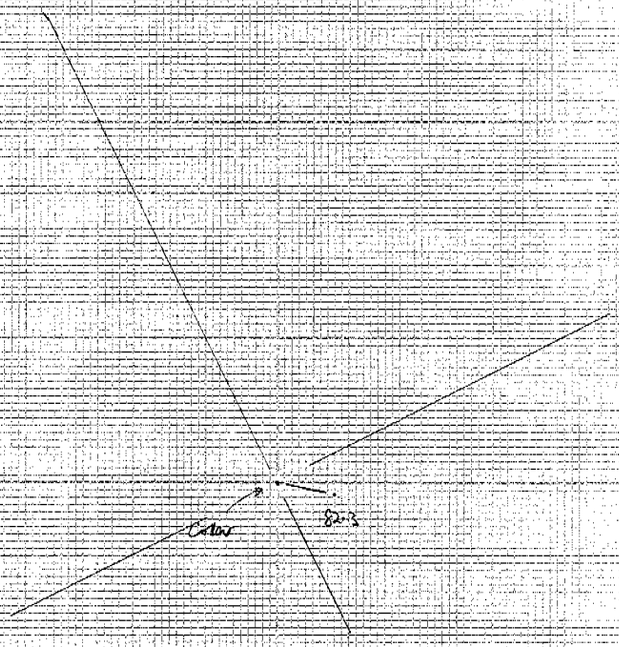
DDH 329

total depth: 287' 87.48 m

survey to: 270' 82.30 m

Scale 1:500

Plan view



W E N S D.D.H 32

0

200

300

400

500

DIAMOND DRILL HOLE NO328

LOCATION: No 3 Orebody

CO-ORDINATES: 110 613.6N 100 203.4E

105·37
3·29
108·66

R.L.: 345.7 Feet

DATE COMMENCED: 30th November 1970

DATE COMPLETED: ~~259'~~

FINAL DEPTH: 259' (78.9 m)

DATE SURVEYED:

LOGGED BY: P Le Messurier

288.7

SAMPLE No.	FROM (FT.)	TO	METRE RECOVD.	CORRECT RECOVD.	ASSAYS WO3	ASSAYS MO	FORMATION	GEOLOGICAL DESCRIPTION	PETROGRAPHY
	0	62 189	62	0				No Core, minor sand and clay recovered.	
	62	91 277	29	26				Meta Volcanics, fine to medium grained granular biotite pyroxene hornfels with abundant feldspars phenocrysts to 5mm General texture appears doleritic. Basal portion of units appears leached and of slightly different composition with biotite almost absent.	
	92	112 341	20	7'				Biotite Hornfels, fine grained abundant biotite well banded and slightly schistose in part. Very clayey band at 100'.	
	112	140 427	28 12	12				~~Clay-- green puggy soft wet clay-associated rock bands of pyroxene hornfels and biotite-pyroxene hornfels.~~	
	140	156 47.5	16	8				~~Clay, brown to yellow brown limonitic rock~~ fragments very soft biotite rich micaceous schist.	
	156	166 50.6	10	0				No core or clay recovered.	
	166	170 51.8	4	2			GRANITE	Granite medium grained, normal mineralogy - very micaceous and limonite stained	
A4318	170	180 54.9	10	2	0.05	Lo.01 (0.01	PYROXENE HORNFELS	Pyroxene Hornfels- fine grained, almost sandy texture and considerable leaching giving fine honeycomb in part, minor disseminated scheelite.	
19	180	54.89 183 55.86	3	1.7	0.59	0.022		Pyroxene Hornfels very leached and honeycomb in part minor garnet, very minor carbonate bands, strong dissemination of scheelite.	
21	186	58.9 188 57.3	2	1.5	0.06	0.014	GRANITE	Granite fine and medium grained, iron stained leached with honeycomb texture in part sparadic scheelite. Driller reports free fall of rods 195'-197 and 200'-205'.	
22	188	192	4	1.2	0.04	Lo.01 (0.01			
23	192	58.5 197 60.01	5	0.5	0.81	0.018			
24	197	60.0 206	9	1	0.05	LO.01 (0.01			
	206	62.9 212 64.6	6	3					

GORMACK GRAPH PAPERS : CHRISTCHURCH N.Z. No. 1650 240 x 30 cm. in mm.

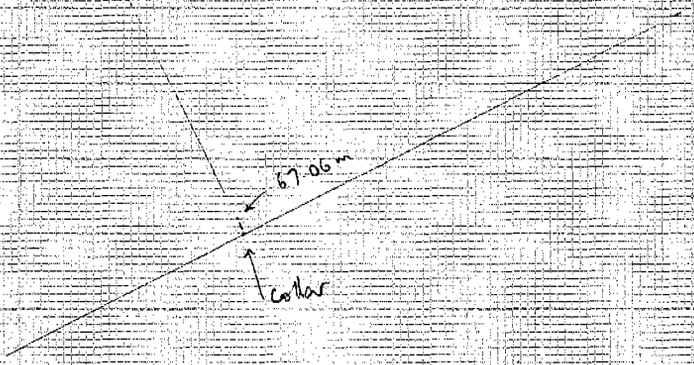
DDH 328

Scale 1:500

Plan view

total depth : 359'

survey TD : 220'



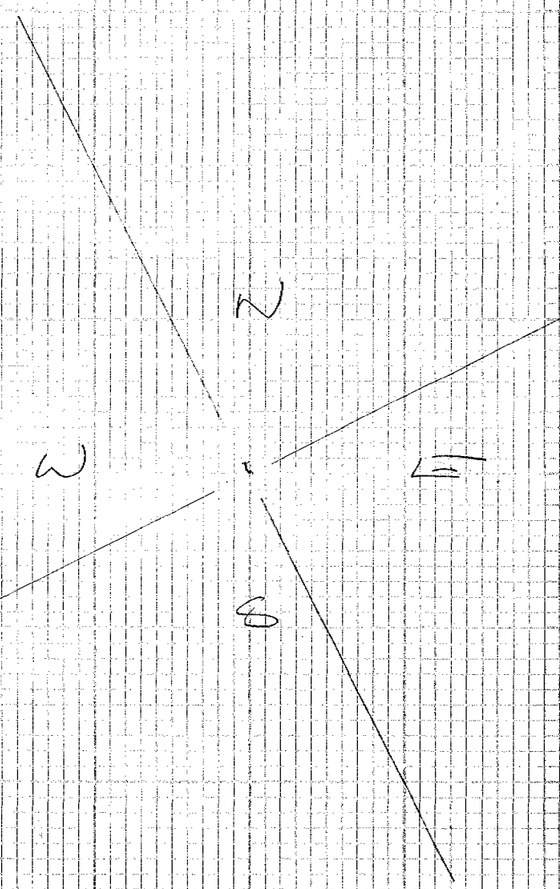
W E N S D.D.H.

0

200

300

400



DIAMOND DRILL HOLE NO 327

LOCATION: No 3 Orebody

CO-ORDINATES: 110 607.4N 100 103.2E

R.L.: 339.9 Feet (103.6 1.5) 106.9

DATE COMMENCED: 21st November 1970

DATE COMPLETED: 1st December 1970

FINAL DEPTH: 180 Feet 54.9

DATE SURVEYED:

LOGGED BY: P Le Messurier

179.9

GEOPEKO LIMITED, [illegible] ISLAND — [illegible] — SHEET No. [illegible]

DRILL HOLE DDH 327

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLE	LENGTH RECO'D.	ASSAYS WO_3	UNIT	GEOLOGICAL DESCRIPTION	REMARKS
				Line 110,600N				
	0	75	75	0			No Core- minor sand and clay recovered.	
	75 22.86	91	16	2		B.META VOLCANICS	Rubble-fragments of Biotite Hornfels and some B Meta Volcanics-some aplite and granite fragments.	
A4304	91 27.7	92	1	0.5	0.09 ~~0.01~~ (0.01		~~Pyroxene Hornfels-light grey-green-very altered and clayey in part.~~	
A4305	92 28.0	94	2	0.5	0.43 0.01	SKARN	Pyroxene Hornfels and Garnet Skarn-	
06	94 28.6	96	2	1.0	0.98 ~~0.015~~ 0.015	B LENS	intermixed in rubble and partial core-	
07	96 29.3	98	2	1.5	0.01 ~~0.01~~ (0.01	0.8% WO_3	manyclayey fractures, some skarn honeycombed	
08	98 29.9	103 3/4	5	1.5	1.55 0.022		and leached, disseminated scheelite.	
	103 31.39	144	41	0		LIMESTONE	No Core recovered-presumed highly altered limestone possibly with solution cavities.	
	144 43.89	160 488	16'	5			Limestone mid grey very altered to pyroxene rich clay and mixed marble and pyroxene hornfels in part.	
	160 48.77	164.5	4.5	4.5		BIOTITE HORNFELS	Biotite Hornfels, fine grained, biotite rich, banded in part some irregular siliceous fragments.	
	164.5 50.1	180	15.5	15		GRANITE	Granite, medium grained porphyritic orthoclase, massive, one minor band of chloritic-epidote alteration.	
							HOLE COMPLETE 180'	

1.96
02
7.75

DIAMOND DRILL HOLE NO. 326

LOCATION: No 3 Orebody

CO-ORDINATES: 110 613.6N. 100 008.9E.

R.L.: 336.0 Feet 1024 / 3.29 / 105.7

DATE COMMENCED: 23rd October 1970

DATE COMPLETED: 12th November 1970

FINAL DEPTH: 256 780

DATE SURVEYED: 13th November 1970

LOGGED BY: P Le Messurier.

244.0

CRONO SCHEELITE, KING ISLAND. DIAMOND DRILL LOG DRILL HOLE No. DDH 326

SAMPLE No.	DISTANCE FT	TO	LENGTH SAMPLES	LENGTH REC'D.	ASSAYS WO3	Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
	0	92	92	0			NO CORE 0 — 28.0	No core recovered-surface soil and clay and presumed large thickness of highly weathered rock.	
A4270	92 28.0	94	2	0.7	0.6	0.01	PYROXENE HORNFELS 28.0 — 28.6	Pyroxene Hornfels, fine grained green siliceous rock.	
4271	94 28.6	96	2	2	0.31	0.01	SKARN B LENS 28.6 — 34.7 0.33% WO_3	Garnet skarn, fine grained andradite skarn with minor pyroxene rich bands, moderate disseminated scheelite-rock fairly strongly leached with numerous clayey vughs.	
4272	96 29.3	99	3	2	0.47	0.01			
4273	99 30.2	104	5	2.5	0.25	0.01			
4274	104 31.7	114 34.7	10	1.5	0.20	0.01			
	114	154	40	0			LIMESTONE 34.7 — 51.2	No core-presumed highly altered ore and limestone probable solution cavity.	
	154	168	14	8				Limestone highly altered in part with zones of solution and precipitation.	
	168	171	3	3			PYROXENE HORNFELS 51.2 — 52.1	Pyroxene Hornfels with some zones of limestone incompletely altered, minor, disseminated scheelite.	
	171	178	7	6			BIOTITE HORNFELS 52.1 — 52.2	Biotite Hornfels, fine grained with irregular siliceous fragments to 1" fragments show angular corners and no orientation a number of thin granite veins and veinletts.	
	178 52.2	256	78	73'			GRANITE	Granite, coarse grained, perphyritic, well developed phenocrysts of orthoclase in a granular mosaic of quartz and plagioclase. Biotite relatively abundant chief mafic mineral. A few oblique joints with crystalline carbonate and clinohumite, some open joints with clayey filling but these relatively rare, clinohumite veins abundant 208-209 and 224-226 where this mineral represents 75% of core.	

HOLE COMPLETED 256'.

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 326 Date Surveyed 13/11/70

Total Depth 263' Depth Surveyed To 60'

Casing Depth 120' Surveyed By P. J. RICE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
	0	OPEN							
	1	"							
	2	"							
	3	CLOSED							
	4	"							
	5	10	1·00						
	6	(mov)							
	7	20	1·45						
	8	40	1·15						
	9	60	1·15						
	10	(mov)							
	11	(mov)							
	12	(mov)							
	13	(mov)							
	discontinued after 13 min								

REMARKS:- It was possible to survey the hole only to 60', due to obstructions at that level. As casing went to 120', it was not possible to use bearing readings.

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 326 Date Surveyed 13/11/70

Total Depth 263' Depth Surveyed To 60'

Casing Depth 120' Surveyed By P. J. RICE

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/W
10	1 00	1 00	0.9998 / 0.0175	9.998	9.998	0.175							
20	1 45	1 45	0.9995 / 0.0305	19.996	19.993	0.305							
40	1 15	1 15	0.9998 / 0.0218	19.996	39.989	0.436							
60	1 15	1 15	0.9998 / 0.0218	19.996	59.985	0.436							

DIAMOND DRILL HOLE NO. 325

LOCATION:	No. 3 Orebody (Section ~~11,400N~~ 10,400N)
CO-ORDINATES:	110,099.43 N. 100,700.44 E.
R.L.:	404.18. 123.2 + 3.3 = 126.5 m Tallarook
DATE COMMENCED:	8th August, 1970.
DATE COMPLETED:	25th August, 1970.
FINAL DEPTH:	843 Feet 256.9
DATE SURVEYED:	
LOGGED BY:	P. Le Messurier

364.13

GEOLOGY & DRILLING, PINE TOLMAN — RECORD — DRILL HOLE No. 325

SAMPLE No.	FROM	TO	LENGTH SAMPLED	LENGTH ASSAYED	ASSAYS WO_3	ASSAYS Mo		GEOLOGICAL DESCRIPTION	FRACTURING
	0	28	28	14			QUARTZITE	QUARTZITE, soft and weathered with sandy texture and honeycomb structure in part. Strong brick red and yellow limonite and haematite iron staining throughout.	
	28	40	12	10.5				QUARTZITE, spotted and micaceous weathered broken and jointed, plentiful yellow limonitic iron staining.	
	40	68	28	27				QUARTZITE, light grey very variable texture and composition, varying from banded through spotted to massive with percentage of both biotite and chlorite extremely variable.	
	68	130	62	61				QUARTZITE, mid-grey granular micaceous with some minor banded sections, a number of fine dark shaley bands generally high in pyrite. Unit quite variable in detailed composition and texture but generally overall consistency. Unit generally well jointed with oblique joints at about 45° to L.C.A.	
	130	162	32	32				QUARTZITE, fine light grey-slightly granular in part, a few dark shaley zones. Generally more massive and uniform than the preceeding unit.	
	162	164.5	2.5	2.5				ALTERATION ZONE, generally siliceous but with abundant chlorite and pyroxene, plentiful pyrite and minor disseminated scheelite.	
	164.5	188.5	24	24				QUARTZITE, mid and dark grey, fine and shaley very variable composition and texture, pyrite veinlets in most shaley sections.	
	188.5	192	3.5	3.5				APLITE, coarse grained but very turbed cloudy texture with mineral species particularly feldspar indistinct, unit generally banded very little mafic mineral. A 0.5' band of quartzite in centre of unit.	
	192	235	43	43				QUARTZITE, fine mid- and light grey - more uniform than some units above, less mica in much of unit, dark shaley bands common. Some pyrite in shaley bands but generally less than usual.	

SAMPLE No.	FROM	TO	LENGTH SAMPLED	LENGTH PROV'D.	ASSAYS WO_3	ASSAYS Mo	GEOLOGICAL DESCRIPTION	FRACTURING
	235	264	29	29			QUARTZITE, fine to medium, very variable composition and texture, numerous cloudy aplite bands up to 2' and about 30% of unit is aplite. Some aplites with clear intrusive margins, others very gradational from re-textured micaceous quartzite. Many fine pyrite veins throughout quartzite.	
	264	339	75	74			QUARTZITE, fine mid and dark grey generally shaley with abundant pyrite in the very fine dark bands. Some coarser micaceous bands and a few minor aplitic veins.	
	339	356.5	17.5	17.5			GRANITE, medium to coarse grained, abundant plagioclase and very minor orthoclase, variable biotite generally only in coarser sections.	
	356.5	368	11.5	11.2			QUARTZITE, fine dark shaley pyrite veins.	
	368	402	34	34			QUARTZITE, light grey fine to medium micaceous and variably granular, a few minor pyrite bands in finer shaley section.	
	402	406	4	4			GRANITE, fine to medium, variable grainsize and mineralogy.	
	406	419	4	4			QUARTZITE, fine to medium grained, very variable grainsize, granular sections grading to aplitic texture.	
	419	423	4	4			GRANITE, medium grained.	
	423	541	18	18			QUARTZITE, very granular, micaceous with strong lineation of blebs in some sections. Some pyritic fine dark shaley bands, some coarse granular micaceous sections, grade to aplite in composition and texture. Whole unit very variable but characteristically granular and micaceous.	
	541	570	29	29			QUARTZITE, fine light grey, many fine dark pyritic shaley bands, some micaceous blebs.	
	570	630	60	58			QUARTZITE, fine to very fine abundant shaley sections, gradationally throughout. Pyrite	

SAMPLE No.	FROM	TO	WIDTH SAMPLED	WIDTH FEET	ASSAYS WO_3	ASSAYS Mo	GEOLOGICAL DESCRIPTION	FRACTURING
	630	645	15	15			QUARTZITE, very fine to cryptocrystalline siliceous, brecdiated strongly in part, with siliceous and chloritic centre.	
	645	698	53	51			QUARTZITE, fine light grey very micaceous in part but not developing blebs and granular zones. Some very fine siliceous sections particularly near top where some irregular alteration is evident.	
	698	707	9	9			GRANODIORITE, medium to coarse grained, rich in biotite, some bands of variable grainsize and composition. Lower contact very gradational to retextured quartzite.	
	707	743	36	36			QUARTZITE, fine to medium light grey very micaceous, numerous granitised bands which show transition in texture and mineralogy.	
	743 226.5	764	21	21			GRANODIORITE, very quartz rich, almost complete absence of potash feldspar rich in biotite but very variable in both texture and mineralogy.	
	764	822	58	58			GRANODIORITE, coarse grained essentially as above but more consistent in texture and composition, some development of orthoclase phenocrysts, several minor bands of aplitic and mafic composition.	
	822	843	21	21			GRANITE, medium to fine grained, a zone of strong hydrothermal alteration with epidote, chlorite, sericite common, minor carbonate. Strong haematite staining of the feldspars. Texture appears finer and confused but this probably due to alteration.	
							END OF HOLE 843 FEET	

DIAMOND DRILL HOLE SUMMARY

D.D.H. 325 FINAL DEPTH 256.9 m.

CO-ORDINATES N 110 099.45 E 100 700.44 RELATIVE LEVEL 123.2 m.

DATE COMMENCED 8/8/70 DATE COMPLETED 25/8/70

DATE SURVEYED 2.

LOCALITY: N° 3 OREBODY.

	Footage	Rock Type	Assay Results WO₃%	Joints per Metre (0 / 0–2 / 2–4 / 4–8 / 8–10 / 10–20 / + 20)	Joint Direction (Dip)	Fracture	Faulting	Filling	Bedding	Veining
191.0 m.	0	Quartzite								
					60°, 40°	Moderate–low		Chlorite/Pyrite		
					(60° dom.)	"		"		
					"	"		"		
					"	"		"		
					"	"		"		
					"	"		Chlorite/Clay		
					60°, 45°	"		"		Vughy with clinohumite
					"	"		"		
					"	"		Chlorite		
					"	"		"		
					"	"	Brecciated & recemented	Chlorite + calcite films		
201.0 m.	10				"	"		"		
					"	"		"		
					60°, 45°	"		Clay/chlorite/epidote		
					(60° dom.)	"		Chlorite		
					"	"		"		
					60°, 40°	"		"		
					(40° dom.)	"		Chlorite/Pyrite/Calcite		
					"	"		Chlorite/Pyrite/Clay/Calcite		
					"	"		"		
211.0 m.	20				"	"		"		
					"	"		"		
		Granite			"	"		"		
		"			"	"		"		
					70°	Low		Clay		
		Quartzite			45°, 30°	"		"		
					45°, 75°	"		"		
					45°	"		Pyrite/Chlorite		
					40° dom.	"		Chlorite		½" vein sericitized
					60°	"		"		
221.0 m.	30				"	"		"		

DIAMOND DRILL HOLE SUMMARY

D.D.H. 325 FINAL DEPTH 256.9 m.

CO-ORDINATES N110099.45 E100700.46 RELATIVE LEVEL 123.2 m.

DATE COMMENCED 8/8/70 DATE COMPLETED 25/8/70

DATE SURVEYED

LOCALITY: No 3 OREBODY.

Footage	Rock Type	Assay Results WO₃%	Joints per Metre (0 / 0–2 / 2–4 / 4–8 / 8–10 / 10–20 / + 20)	Joint Direction (Dip)	Fracture	Faulting	Filling	Bedding	Veining
221.0m. 0	Quartzite								
				40°, 50°	Low		Chlorite/Pyrite		
				"	"		"		Pyrite
				50°	"		"		
				35°	"		"		
				40°, 85°	"		"		
	Granite			45°, 60°	"		Quartz		
				(60° dom.)	"		Pyrite/Quartz		
				15°	"		Minor clay		
				"	"		and quartz		
231.0m. 10				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				15°, 75° (15° dom.)	"		"		
				"	"		"		
				"	"		"		
241.0m. 20				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
				"	"		"		
251.0m. 30				"	"		"		

DIAMOND DRILL HOLE SUMMARY

SHEET NO 3 OF 3

D.D.H. 325 FINAL DEPTH 256.9m.

CO-ORDINATES N110099.45 E100700.44 RELATIVE LEVEL 123.2m.

DATE COMMENCED 8/8/70 DATE COMPLETED 25/8/70

DATE SURVEYED

LOCALITY: No 3 OREBODY

	Footage	Rock Type	Assay Results WO₃%	Joints per Metre 0 / 0–2 / 2–4 / 4–8 / 8–10 / 10–20 / + 20	Joint Direction (Dip)	Fracture	Faulting	Filling	Bedding	Veining
251.0m	0	Granite			15°, 75°	Low		Clay		
					"	"		"		
					"	"		"		
					"	"		"		
					"	"		"		
		256.94m. E.O.H.			"	"		"		
	10									
	20									
	30									

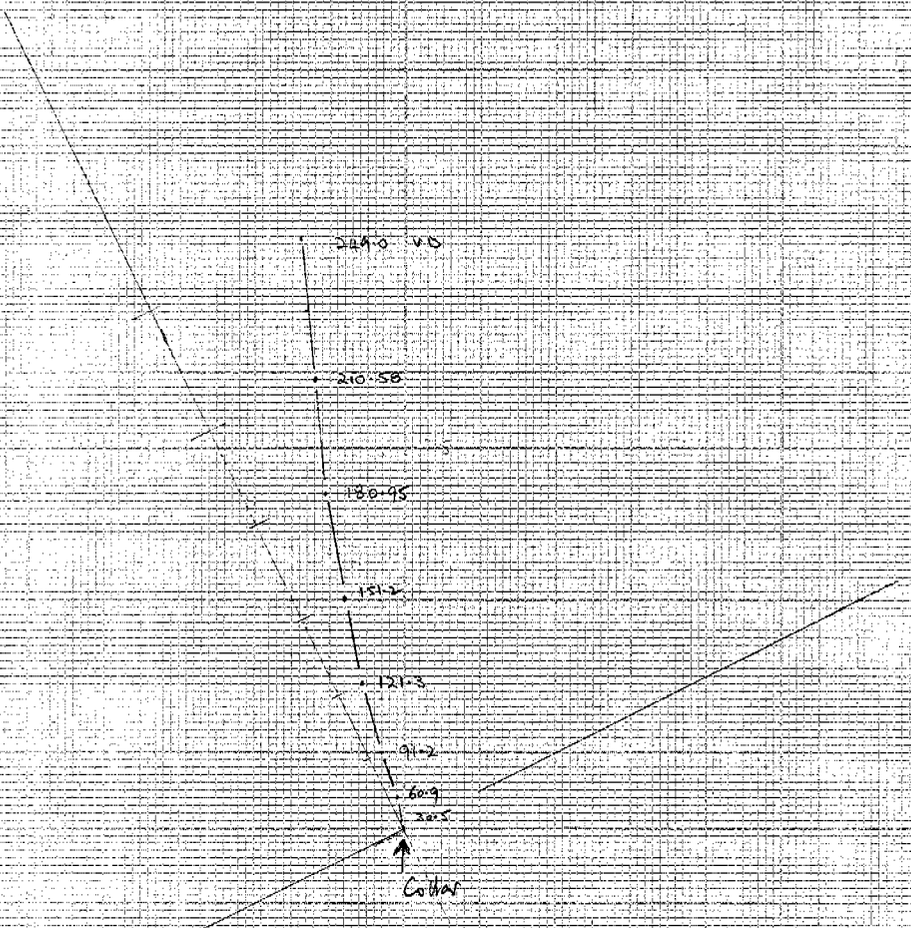
DDH 325

Scale 1:500

Plan view

Total depth: 843' 256.95 m

Survey T.: 830' 252.98 m



D.H. N°. 325.

W E 10200 N 10100 S

100

200

300

400

500

600

700

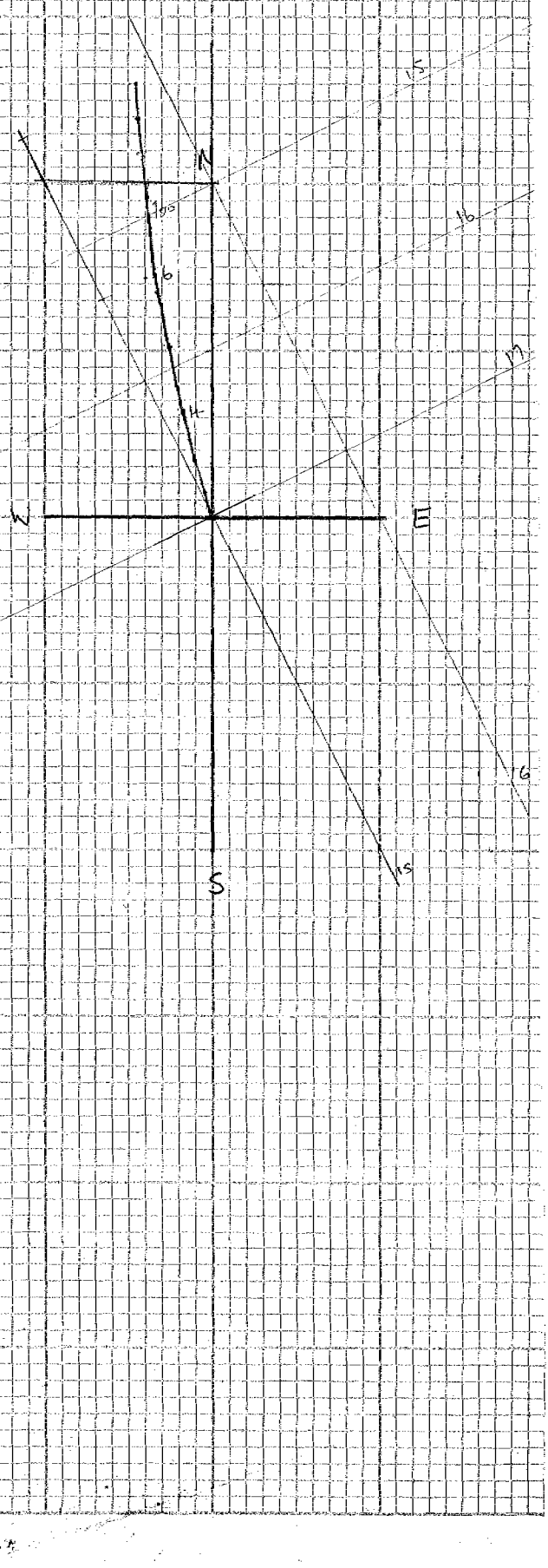
800

DDH. N°. 325

DATE SURVEYED. - 26/8/

TOTAL DEPTH - 843'

DEPTH OF SURVEY - 830



DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 325 Date Surveyed 26/8/70

Total Depth 843' Depth Surveyed To 830

Casing Depth _____ Surveyed By V.M. FREESTONE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
	0	OPEN				22	240	5 30	N17W
	1	OPEN				23	260	6 15	N21W
	2	OPEN				24	280	6 45	N22W
	3	CLOSED				25	300	7 15	N22W
	4	"				26	300	7 15	N22W
	5	"				27	320	8 0	N18W
	6	"				28	340	8 15	N16W
	7	"				29	360	8 30	N17W
	8	20	(Toss	moving)		30	380	9 15	N16W
	9	20	0 30	N		31	400	9 45	N14W
	10	40	0 15			32	400	9 45	N14W
	11	60	0 45	N5W		33	420	10 15	N11W
	12	80	1 0	N1W		34	440	10 45	N11W
	13	100	1 30	N16W		35	460	11 15	N11W
	14	100	1 30	N16W		36	480	11 45	N11W
	15	120	2 15	N15W		37	500	12 0	N11W
	16	140	2 45	N11W		38	500	12 0	N11W
	17	160	3 15	N13W		39	520	12 30	N10W
	18	180	3 30	N15W		40	540	12 45	N10W
	19	200	4 0	N19W		41	560	13 0	N10W
	20	200	4 0	N18W		42	580	13 0	N12W
	21	220	4 45	N18W		43	600	13 0	N12W

REMARKS:- _____

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 325 Date Surveyed 26/8/70

Total Depth 843' Depth Surveyed To 830

Casing Depth _____ Surveyed By V. M. FREESTONE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
	44	600	13 0	N 12 W		66	800	14 30	N 14 W
	45	620	13 30	N 9 W		67	780	14 15	N 5 W
	46	640	13 30	N 7 W		68	760	14 0	N 5 W
	47	660	13 30	N 7 W		69	740	14 0	N 6 W
	48	680	13 45	N 7 W		70	720	13 45	N 4 W
	49	700	13 45	N 6 W		71	700	13 45	N 5 W
	50	700	13 45	N 5 W		72	680	13 30	N 6 W
	51	720	13 45	N 6 W		73	660	13 30	N 7 W
	52	740	13 45	N 6 W		74	640	13 30 (Poss. moving)	N 6 W
	53	760	14 0	N 5 W		75	620	13 30	N 6 W
	54	780	14 15	N 5 W		76	600	13 15	N 7 W
	55	800	14 30	N 4 W		77	580	(moving)	
	56	800	14 30	N 4 W		78	580	13 0	N 11 W
	57	820	14 45	N 4 W		79	560	13 0	N 10 W
	58	830	14 45	N 4 W		80	540	12 45	N 9 W
	59	830	14 45	N 4 W		81	520	12 30	N 10 W
	60	"	"	"		82	500	12 0	N 10 W
	61	"	"	"		83	480	11 45	N 11 W
	62	"	"	"		84	460	11 15	N 10 W
	63	"	"	"		85	440	10 45	N 11 W
	64	"moving				86	420	10 15	N 11 W
	65	820	14 45	N 4 W		87	400	10 0	N 14 W

REMARKS:- _____

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 325 — Date Surveyed 26/8/70

Total Depth 843' — Depth Surveyed To 830

Casing Depth — Surveyed By V.M. FREESTONE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct	
	88	380	9 0	N15W		110	Closed			
	89	360	8 30	N17W		111	"			
	90	340	8 15	N16W		112	"			
	91	320	8 0	N18W		113	"			
	92	300	7 15	N21W		114	OPEN			
	93	280	6 45	N21W		115	"			
	94	260	6 0	N19W						
	95	240	5 15	N16W						
	96	220	4 45	N15W						
	97	200	4 0	N14W						
	98	180	3 15	N11W						
	99	160	3 15	N15W						
	100	140	2 45	N14W						
	101	120	2 15	N16W						
	102	100	1 30	N12W						
	103	80	1 15	N6W						
	104	80	1 15	N7W						
	105	60	(pass moving)							
	106	60	1 0							
	107	40	0 15							
	108	20								
	109	Closed								

REMARKS:-

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 325 Date Surveyed 26/8/70

Total Depth 843' Depth Surveyed To 830'

Casing Depth _____ Surveyed By V. M. FREESTONE

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/W
20	0 30	0 15	1.0000 / 0.0044	20.0	20.0	0.088							
40	0 15	0 30	1.0000 / 0.0087	20.0	40.0	0.174							
	0 15												
60	0 45	0 52½	0.9998 / 0.0153	19.996	59.996	0.306							
	1 0												
80	1 0	1 7½	0.9998 / 0.0197	19.996	79.992	0.394							
	1 15					(1.486)							
100	1 30	1 30	0.9997 / 0.0262	19.994	30.47 99.986	0.524	N16W	346 N14W	0.9703 / 0.2419	1.4419	0.3595	1.4419	0.3585
	1 30						N12W						
120	2 15	2 15	0.9992 / 0.0393	19.984	119.970	0.786	N15W	N13½W	0.9636 / 0.2672	0.7574	0.2100	2.1993	0.5695
	2 15						N16W						
140	2 45	2 45	0.9988 / 0.0480	19.976	139.946	0.960	N11W	N12½W	0.9763 / 0.2164	0.9372	0.2077	3.1365	0.7772
	2 45						N14W						
160	3 15	3 15	0.9984 / 0.0567	19.968	159.914	1.134	N13W	N14W	0.9703 / 0.2419	1.1003	0.2743	4.2368	1.0515
	3 15						N15W						
180	3 30	3 30	0.9981 / 0.0610	19.962	179.876	1.220	N15W	N13W	0.9744 / 0.2250	1.1888	0.2745	5.4256	1.3260
	3 15						N11W						
200	4 0	4 0	0.9976 / 0.0698	19.952	60.91 199.828	1.396	N18W	3kW N16W	0.9613 / 0.2756	1.3420	0.3847	2.06 6.7676	.52 1.7107
	4 0						N14W						
220	4 45	4 45	0.9966 / 0.0828	19.932	219.760	1.656	N18W	N16½W	0.9588 / 0.2840	1.5878	0.4703	8.3554	2.1810
	4 45						N15W						
240	5 30	5 22½	0.9956 / 0.0937	19.912	239.672	1.874	N17W	N16½W	0.9588 / 0.2840	1.7968	0.5322	10.1522	2.7132
	5 15						N16W						
260	6 15	6 7½	0.9943 / 0.1067	19.886	259.558	2.134	N21W	N20W	0.9397 / 0.3420	2.0053	0.7298	12.1575	3.4430
	6 0						N19W						
280	6 45	6 45	0.9931 / 0.1175	19.862	279.420	2.350	N22W	N21½W	0.9304 / 0.3665	2.1864	0.8613	14.3439	4.3043
	6 45						N21W						

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 325 Date Surveyed 26/8/70

Total Depth 843' Depth Surveyed To 830'

Casing Depth _____ Surveyed By V. M. FREESTONE.

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/W
300	7 15	7 15	0·9920 / 0·1262	19·840	299·260 (91·21)	2·524	N22W	339 N21½W	0·9304 / 0·3665	2·3483	0·9250	5·09 / 16·6922	1·59 / 5·2293
	7 15						N21W						
320	8 0	8 0	0·9903 / 0·1392	19·806	319·066	2·784	N18W	N18W	0·9511 / 0·3090	2·6479	0·8602	19·3401	6·0895
	8 0						N18W						
340	8 15	8 15	0·9897 / 0·1433	19·794	338·860	2·870	N16W	N17W	0·9563 / 0·2924	2·7446	0·8392	22·0847	6·9287
	8 15						N16W						
360	8 30	8 30	0·9890 / 0·1478	19·780	358·640	2·956	N17W	N17W	0·9563 / 0·2924	2·8268	0·8643	24·9115	7·7930
	8 30						N17W						
380	9 15	9 7½	0·9873 / 0·1586	19·746	378·386	3·172	N16W	N15½W	0·9636 / 0·2672	3·0565	0·8475	27·9680	8·6405
	9 0						N15W						
400	9 45	9 52½	0·9852 / 0·1715	19·704	398·090 (121·34)	3·430	N14W	346 N14W	0·9703 / 0·2419	3·3281	0·8297	9·54 / 31·2961	2·89 / 9·4702
	10 0						N14W						
420	10 15	10 15	0·9840 / 0·1779	19·680	417·770	3·558	N11W	N11W	0·9816 / 0·1908	3·4425	0·6789	34·7886	10·1841
	10 15						N11W						
440	10 45	10 45	0·9825 / 0·1865	19·650	437·420	3·730	N11W	N11W	0·9816 / 0·1908	3·6614	0·7117	38·4500	10·8608
	10 45						N11W						
460	11 15	11 15	0·9808 / 0·1951	19·616	457·036	3·902	N11W	N11W	0·9816 / 0·1908	3·8302	0·7445	42·2802	11·6053
	11 15						N10W						
480	11 45	11 45	0·9790 / 0·2036	19·580	476·616	4·072	N11W	N11W	0·9816 / 0·1908	3·9971	0·7769	46·2773	12·3822
	11 45						N11W						
500	12 0	12 0	0·9781 / 0·2079	19·562	496·178 (151·23)	4·158	N11W	345 N10½W	0·9833 / 0·1822	4·0886	0·7576	15·35 / 50·3659	4·00 / 13·1398
	12 0						N10W						
520	12 30	12 30	0·9763 / 0·2164	19·526	516·704	4·328	N10W	N10W	0·9848 / 0·1736	4·2622	0·7513	64·6281	13·8911
	12 30						N10W						
540	12 45	12 45	0·9753 / 0·2207	19·506	535·210	4·414	N10W	N10W	0·9848 / 0·1736	4·3469	0·7663	68·9750	14·6574
	12 45						N9W						
560	13 0	13 0	0·9744 / 0·2250	19·488	554·698	4·500	N10W	N10W	0·9848 / 0·1736	4·4316	0·7812	73·4066	15·4386
	13 0						N10W						

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 325 Date Surveyed 26/8/70

Total Depth 843' Depth Surveyed To 830'

Casing Depth _____ Surveyed By V. M. FREESTONE.

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/W
580	13 0	13 0	0·9744 / 0·2250	19·488	574·186	4·500	N12W	N11½W	0·9799 / 0·1994	4·4096	0·8973	67·8162	16·3359
	13 0						N11W						
600	13 0	13 7½	0·9739 / 0·2271	19·478	593·664 (180·95)	4·542	N12W	350 N9½W	0·9863 / 0·1650	4·4798	0·7494	72·296 (22·04)	17·0853 (5·21)
	13 15						N7W						
620	13 30	13 30	0·9724 / 0·2334	19·448	613·112	4·668	N9W	N9W	0·9877 / 0·1564	4·6106	0·7301	76·9066	17·8154
	13 30						N9W						
640	13 30	13 30	0·9724 / 0·2334	19·448	632·560	4·668	N7W	N6½W	0·9936 / 0·1132	4·6381	0·5284	81·5447	18·3438
	13 30						N6W						
660	13 30	13 30	0·9724 / 0·2334	19·448	652·008	4·668	N7W	N7W	0·9925 / 0·1219	4·6330	0·5690	86·1777	18·9128
	13 30						N7W						
680	13 45	13 37½	0·9718 / 0·2356	19·436	671·644	4·712	N7W	N6½W	0·9936 / 0·1132	4·6818	0·5334	90·8595	19·4462
	13 30						N6W						
700	13 45	13 45	0·9713 / 0·2377	19·426	690·870 (210·58)	4·754	N5W	355 N5W	0·9962 / 0·0872	4·7359	0·4145	95·5954 (29·13)	19·8607 (6·05)
	13 45						N5W						
720	13 45	13 45	0·9713 / 0·2377	19·426	710·296	4·754	N6W	N5W	0·9962 / 0·0872	4·7359	0·4145	100·33	20·2752
	13 45						NHW						
740	13 45	13 52½	0·9708 / 0·2398	19·416	729·712	4·796	N6W	N6W	0·9945 / 0·1045	4·7696	0·5012	105·10	20·7764
	14 0						N6W						
760	14 0	14 0	0·9703 / 0·2419	19·406	749·118	4·838	N5W	N5W	0·9962 / 0·0872	4·9196	0·4219	109·92	21·1983
	14 0						N5W						
780	14 15	14 15	0·9692 / 0·2462	19·384	768·502	4·924	N5W	N5W	0·9962 / 0·0872	4·9053	0·4294	114·83	21·6277
	14 15						N5W						
800	14 30	14 30	0·9681 / 0·2504	19·362	787·864	5·008	NHW	340 NHW	0·9976 / 0·0698	4·9960	0·3495	119·82 (36·52)	21·9772 (6·70)
	14 30						NHW						
820	14 45	14 45	0·9670 / 0·2546	19·340	807·204	5·092	NHW	NHW	0·9976 / 0·0698	5·0798	0·3554	124·90	22·3326
	14 45						NHW						
830	14 45	14 45	0·9670 / 0·2546	9·670	816·814 (249·0)	2·546	NHW	340 NHW	0·9976 / 0·0698	2·5399	0·1777	127·44	22·5103

DIAMOND DRILL HOLE NO. 324

LOCATION: No. 3 Orebody

CO-ORDINATES: 110402.8N. 100498.4.E.

R.L.: 378.1 115.2 m + 3.3 = 118.5m Tallaroook.

DATE COMMENCED: 1943

DATE COMPLETED:

FINAL DEPTH: 572 Feet (174.3)

DATE SURVEYED:

LOGGED BY: P. Le Messurier

37'

324 P-1

DRILL HOLE No. 324

SAMPLE No.	FROM	TO	METRES SAMPLED	CORE FOOTAGE	RECOVERY	LITHOLOGICAL DESCRIPTION	FRACTURES
	0	10	10	0	No Core	No Core, Surface soil, sand and clay	
	10	34	24	12		QUARTZITE, fine grained, strongly weathered with numerous friable sandy and clayey sections, iron stained throughout.	
	34	37	3	3		APLITE, weathered and ironstained, clayey bands and friable in part.	
	37	54	17	16		QUARTZITE, light and mid-grey fine grained variable texture from granular to banded in part iron stained and slightly weathered at top decreasing towards base where weathering confined to joints and fractures.	
	54	58	4	4		APLITE, generally fine grained, siliceous cloudy texture, minor biotite, some ironstaining at top of unit.	
	58	98	40	38		QUARTZITE, fine grained generally banded with the development of biotite bands common in top half of unit but less abundant in remainder. Fracture zone with ironstaining 71'. Aplite band 73' to 74.5'. From 85 feet shaley band with pyrite appears and also someincrease in biotite develop ment.	
	98	110	12			QUARTZITE, mid and dark grey, very variable texture from mottled to banded. General appearance of mobility with contorted bands and general zones of disturbance and growth. Some small bands show pseudo-aplitic texture and 103 - 105 very siliceous and turbed aplite band. Biotite developed in shaley bands which also show high pyrite percentage.	
	110	116.5	6.5	6.5		APLITE, fine to medium grain, turbed texture with quartz and plagioclase as cloudy zones. Minor biotite and some amphibole.	
	116.5	126	9.5	9.5		QUARTZITE, fine grained micaceous with the development of biotite rather than the usual muscovoite.	
	126	128	2	2		APLITE, medium grained, cloudy.	

SAMPLE No.	DISTANCE FROM	DISTANCE TO	CORE LENGTH	WIDTH FEET	ASSAYS	DESCRIPTION	FRACTURES
	128	202	74	72		QUARTZITE, fine to more generally medium grainsize micaceousirregularly sized bands of variable composition some coarser siliceous some micaceous. Some bands of fine shaley rock type generally high in pyrite. A few small aplitic type veins to 2". Two zones of brecciation with very chloritic and clayey matrix 137.5' to 138.5', 188' to 189'.	
	202	205	3	3		APLITE, fine to medigmcloudy texture slightly higher in biotite than usual.	
	205	212	7	7		QUARTZITE, medium grained micaceous, very thin aplitic bands.	
	212	228	16	15		QUARTZITE, very fine dark and grading to shale, numerous pyrite veins and abundant disseminated pyrite in the finer sections.	
	228 695	245 747	17	17		GRANITE, medium to coarse grain,grainsize fairly variable throughout. Plagioclase and quartz crystals prominant in some zones but texture often cloudy with very indistinct mineralogy. Biotite very variable from virtually absent to abundant in one 12" band. Upper margin shows some intermixture of quartzite although margin straight. Lower margin fracture but some evidence of admixture.	
	245	275	30	30		SHALE, very fine dark rock with abundant pyrite and muscovite grades to fine quartzite in part. Pyrite as transgressive veins, on bedding as fine disseminations. Several thin aplitic veins.	
	275	295	20	20		QUARTZITE, fine to medium grained in part, micaceous with numerous thin dark fine shaley bands with associated pyrite. Several irregular aplitic bands showing very curdy texture with admixture of quartzite.	
	295	298	4	4		APLITE, fine grained orthoclase prominant variable from very fine cryptocrystalline to quite coarse, biotite abundant in coarser bands.	

Sample No.	From	To	Length	Core Loss	Geological Description
	298	378	80	80	QUARTZITE, very fine dark grey grading to shale variably throughout. Pyrite plentiful usually as small veinlets and disseminated blebs. Pyrite particularly abundant 350 - 370. Gradations from very fine shale to quartzite inperceptable and relate chiefly to an increase in muscovite in the development of a granular texture. From 370 to 374 a particularly granular band showing some evidence of retexturing. Chlrotie prominant in this band. Several smaller bands 1 to 3 inches show similar grainsize growth and chlorite.
	378	432	54	54	QUARTZITE. fine to medium grained light grey numerous shaley bands with associated pyrite, some coarser bands with chlorite and minor retexturing. Pyrite percentage and form very variable throughout unit. Two major quartz veins 2" at 411' and 6" at 412'.
	432	459.5	27.5	26	QUARTZITE, very variable in composition and texture but generally medium grained light grey with numerous shaley and pyritic bands. Irregular fractured and brecciated zones with mixed chloritic and siliceous matrix well developed 436' to 443.5' and 453' to 459.5'. Breccia zones rich in chlorite and pyrite. These zones could be faults or may simply be in response to the granite intrusive.
	459.5	525	65.5	140.0	GRANITE, fine grained with few distinct mineral grains giving overall cloudy turbed texture. Some irregular large, feldspar blebs. Biotite variable but chlorite common in irregular veinlets, numerous silica and chlorite veinlets in overall shatter type texture. Upper 1 foot strongly brecciated and mixed in part with quartzite chloritic silica matrix with some well developed clinohumite veins and fracture fillings. Texture becomes slightly more distinct away from upper 20 feet outlined by plentiful interstitial biotite which agregates in belbs and nodes, chloritic alteration commonly associated with fractures. Fine grained siliceous aplite zones 485 to 487.5' and 502' to 505'.

SAMPLE NO.	DEPTH FROM	DEPTH TO	CORE RECOVERY	LABORATORY RECORD	GEOLOGIC DESCRIPTION	FRACTURING
	525	572	47		GRANITE, essentially as above with gradual change from biotite to hornblende as the mafic mineral. From 525 to about 550 biotite and hornblende coexists and from 550 to end of hole hornblende is generally the sole mafic mineral.	
					END OF HOLE 572 FEET	

DDH 324

Fault 411' (125.3 m)

Fault zone 437' (133.2 m) - 440' (134.1 m)

Fault zone 454' (138.4 m) - (139.9 m)

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No.	324	Date Surveyed	28/7/20
Total Depth	572'	Depth Surveyed To	560'
Casing Depth	15'	Surveyed By	V. M. FREESTONE

Shot No.	Time	Depth	Defl. ° '	Direct.	Shot No.	Time	Depth	Defl.	Direct
	0	OPEN				22	340	2 45	N56W
	1	OPEN				23	360	2 45	N52W
	2	OPEN				24	380	3 0	N52W
	3	Closed				25	400	3 30	N51W
	4	"	—			26	420	3 30	N45W
	5	"	—	—		27	440	4 0	N34W
	6	20	—	—		28	460	4 0	N32W
	7	40	0 30	—		29	480	4 0	N31W
	8	60	0 30	N51W		30	500	4 0	N33W
	9	80	1 0	N65W		31	520	4 0	N31W
	10	100	1 0	N55W		32	540	4 15	N34W
	11	120	1 15	N61W		33	560	4 0	N35W
	12	140	1 30	N62W		34	560	4 0	N35W
	13	160	1 45	N65W		35	540	4 15	N36W
	14	180	2 0	N62W		36	520	4 0	N33W
	15	200	2 0	N59W		37	500	4 0	N33W
	16	220	2 0	N62W		38	500	4 0	N33W
	17	240	2 15	N64W		39	480	3 45	N35W
	18	260	2 15	N70W		40	460	3 45	N33W
	19	280	2 30	N71W		41	440	3 45	N40W
	20	300	2 30	N65W		42	420	3 30	N46W
	21	320	2 30	N65W		43	400	3 0	N44W

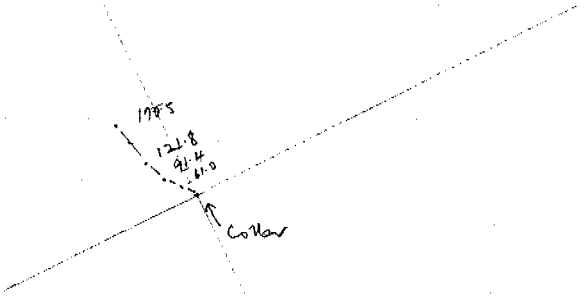
DDH 324

Scale 1:500

Plan View

Total depth : 572' 174.34 m

Survey To : 560' 170.69 m



DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 324 Date Surveyed 28/7/70

Total Depth 572' Depth Surveyed To 560'

Casing Depth 15' Surveyed By W. M. FREESTONE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
	44	400	3 0	N49W		66	60	0 30	
	45	380	3 0	N55W		67	40	0 15	
	46	380	3 0	N54W		68	20	0 15	
	47	360	3 0	N59W		69	Closed		
	48	340	2 45	N57W		70	"		
	~~49~~	320	2 30	N60W		71	"		
	50	320	2 30	N60W		72	OPEN		
	51	320	2 30	N60W					
	52	300	2 30	N60W					
	53	280	2 15	N61W					
	54	260	2 15	N68W					
	55	240	2 0	N68W					
	56	220	2 0	N68W					
	57	220	2 0	N68W					
	58	200	1 45	N64W					
	59	180	1 45	N65W					
	60	160	1 30	N66W					
	61	140	1 30	N60W					
	62	120	1 15	N60W					
	63	120	1 15	N60W					
	64	100	1 0	N55W					
	65	80	0 45	N65W					

W E N S

D.D.H. 324

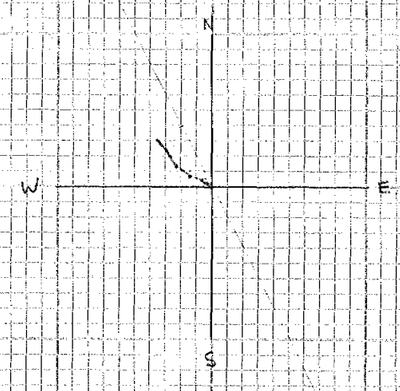
100

200

300

400

500



D.D.H. No :- 324

DATE SURVEYED :- 28/7/70

TOTAL DEPTH :- 572'

DEPTH SURVEYED TO :- 560'

CASING DEPTH :- 15'

RMAN GRAPH No. 901/P2A

DIAMOND DRILL HOLE NO. 322

LOCATION:	No. 3 Orebody (Line 110,400N)
CO-ORDINATES:	110,400.28 N. 100,099.81E.
R.L.:	343.45 (104.68 + 3.29 = 107.97)
DATE COMMENCED:	3rd September, 1970.
DATE COMPLETED:	
FINAL DEPTH:	344 Feet 104.85 m
DATE SURVEYED:	
LOGGED BY:	P. Le Messurier

233.45

SAMPLE No.	FT	FT	LENGTH	CORE %	WO_3	Mo	LITHOLOGY	DESCRIPTION	REMARKS
	0	37 (11.3)	37	0			No Core	Surface soil, clay and weathered rock.	
	37	110 (33.5)	73	2			RUBBLE	Rubble and clay, sporadic fragments of silicified and altered fragmental volcanics.	
	110	115 (35.0)	5	1			GRANITE	GRANITE, medium to coarse grained, porphyritic.	
	115	142 (43.3)	27	22			BRECCIA	BRECCIA, fragmental rock, with irregular fragments of biotite hornfels, granite, meta volcanics, marble, quartz, feldspar, all generally altered, in a very siliceous and often granitic matrix.	Very broken in part.
	142	185 (56.4)	43	43			B META VOLCANICS	B META VOLCANICS, dark crystalline biotite pyroxene hornfels abundantly spotted with feldspar laths, some oblique. Chloritic and carbonate filled joints.	
	185	200 (60.96)	15	14			PYROXENE HORNFELS	PYROXENE HORNFELS, thinly bedded with some well developed biotite hornfels bands, particularly at top, some very minor garnet bands. A few chlorite clay filled joints oblique to core 1.5'.	
A4006	200	202 (61.6)	2	2	0.22	0.021			
A4007 ✓	202 (61.6)	203.5 (62.0)	1.5	1.5	1.30	0.044	SKARN B LENS HORIZON	SKARN, generally pyroxene rich with minor garnet bands, general banding throughout. Unit appears strongly altered with numerous leached cavities and veinlets of secondary minerals including carbonates.	
A4008 /	203.5 (62.0)	214 (65.2)	10.5	2	0.14	0.013			
A4009 /	214 (65.2)	216 (65.8)	2	1	1.21	0.018			
A4010	216 (65.8)	218 (66.4)	2	2	0.13	0.023			
A4011	218 (66.4)	220 (67.0)	2	2	0.19	0.013			
A4012	220 (67.0)	222 (67.7)	2	2	0.10	0.026			
A4013	222 (67.7)	224 (68.3)	2	1	0.08	0.019			
A4014	224 (68.3)	226 (68.9)	2	1	0.09	0.014			
A4015	226 (68.9)	228 (69.5)	2	1.5	0.08	0.018			
A4016	228 (69.5)	230 (70.1)	2	2	0.09	0.023			
A4017	230 (70.1)	232 (70.7)	2	2	0.11	0.014			
A4018	232 (70.7)	234.5 (71.5)	2.5	1.5	0.16	0.015			
	234.5 (71.5)	257					GRANITE	GRANITE, medium to coarse grained porphyritic orthoclase in part, quartz often cloudy and rounded, biotite chief mafix mineral altered to chlorite in part, contact zone brecciated with carbonate and seluce veins and strong iron oxide development.	
	257	273	16	16				GRANITE, medium grained grey green colour abundant alteration to chlorite and epidote, feldspars very	

SAMPLE NO.	FROM	TO	WIDTH	CORE SIZE	DESCRIPTION	FRACTURE
					cloudy and some development of pyroxene, irregular blebs of scheelite and molybdenite becoming abundant in part. (Unit to besplit by saw).	
	273	344	71	71	GRANITE, medium to coarse grained fairly quartz rich, porphyritic orthoclase in part, some areas of chlorite and epidote alteration, biotite chief mafic and evenly spread throughout.	
					Quartz Vein 285 - 289.	
					HOLE COMPLETED 344 FEET.	

DIAMOND DRILL HOLE ASSAY SHEET

Hole No.: 322

Logged By: P. Le Messurier

Sample No.	FOOTAGES			ASSAYS		L X A	REMARKS
	From	To	Length	WO_3	Mo		
A4006	200 61.0	202	2	0.22	0.021	0.44	
A4007	202 61.6	203.5	1.5	1.30	0.044	1.95	ESTIMATED
A4008	203.5 62.0	214	10.5	0.14	0.013		2' Recovery
A4009	214 65.2	216 65.8	2	1.21	0.018	2.42	0.68 / 12.5 @
A4010	216 65.8	218	2	0.13	0.023		12.5' @
A4011	218 66.4	220	2	0.19	0.013		Mo: 0.017
A4012	220 67.0	222	2	0.100	0.026		
A4013	222 67.7	224	2	0.08	0.019		
A4014	224 68.3	226	2	0.09	0.014		
A4015	226 68.9	228	2	0.08	0.018		
A4016	228 69.5	230	2	0.09	0.023		
A4017	230 70.1	232	2	0.11	0.014		
A4018	232 70.7	234.5 71.5	2.5	0.16	0.015		

DDH 322

Fault zone after ap. 115' (35.0 m) - 143' (43.6 m)

LV

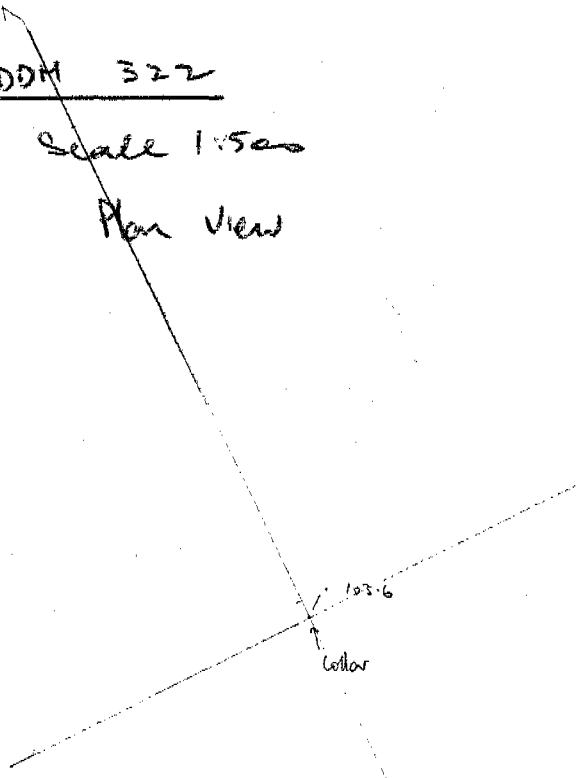
KG3 178

After Ap. Fault at 33.0 m

DDH 322

Scale 1:50

Plan View



Total depth : 344' 104.85 m

Survey to : 340' 103.63 m

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 322 Date Surveyed 21/9/70

Total Depth 344 Depth Surveyed To 340

Casing Depth 140 (approx) Surveyed By V. M. FREESTONE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
	0	OPEN				32	120	1 15	N41E
	1	OPEN				33	140	1 15	N39E
	2	OPEN				34	160	1 15	N38E
	3	CLOSED				35	180	1 45	N50E
	4	"				36	200	1 15	N33E
	5					37	200	1 15	N33E
	6					38	220	1 15	N27E
	7					39	240	1 0	N43E
	8					40	260	1 0	N13E
	9					41	280	1 30	N15E
	10					42	300	1 45	N15E
	11					43	300	1 45	N15E
	12					44	320	1 30	N25E
	23	"				45	340	1 0	NH0E
	24	Moving				46	340	1 0	NH0E
	25	10				47	340	1 0	N40E
	26	20				48	320	1 0	N30E
	27	40	0 45			49	300	1 30	N25E
	28	60				50	280	1 30	N25E
	29	80	1 0			51	260	1 30	N24E
	30	100	1 0	S 80E		52	240	1 30	N10E
	31	100	1 0	S 80E		53	220	1 15	N

REMARKS:-

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 322 Date Surveyed 21/9/70

Total Depth 344 Depth Surveyed To 340

Casing Depth 140 (Approx) Surveyed By V. M. FREESTONE.

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct	
	54	200	1 0	N 10 E						
	55	180	1 15	N 25 E						
	56	160	1 15	N 38 E						
	57	140	1 15	N 39 E						
	58	120	1 15	N 24 E						
	59	100	1 0	N 29 E						
	60	80	0 45							
	61	60	0 45							
	62	40	0 45							
	63	20	1 0							
	64	10	0 45							
	65	Closed								
	66	"								
	67	"								
	68	"								
	69	"								
	70	OPEN								

REMARKS:-

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 322 Date Surveyed 21/9/70

Total Depth 344' Depth Surveyed To 340'

Casing Depth 140' (Approx) Surveyed By V.M. FREESTONE.

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/W
20	1 0	1 0	0·9998 / 0·0175	19·996	19·996	0·350							
	1 0												
40	0 45	0 45	0·9999 / 0·0131	19·998	39·994	0·262							
	0 45												
60		0 45	0·9999 / 0·0131	19·998	59·992	0·262							
	0 45												
80	1 0	0 52½	0·9998 / 0·0153	19·996	79·988	0·306							
	0 45												
100	1 0	1 0	0·9998 / 0·0175	19·996	99·984	0·350							
	1 0						N29E	In Casing					
120	1 15	1 15	0·9998 / 0·0218	19·996	119·980	0·436							
	1 15						N24E						
140	1 15	1 15	0·9998 / 0·0218	19·996	139·976	2·402 / 0·436	N39E	N39E					
	1 15						N39E						
160	1 15	1 15	0·9998 / 0·0218	19·996	159·972	0·436	N38E	N38E					
	1 15						N38E						
180	1 15	1 15	0·9998 / 0·0218	19·996	179·968	0·436	N50E?						
	1 15						N25E						
200	1 15	1 7½	0·9998 / 0·0197	19·996	199·964	0·394	033 N33E						
	1 0						N10E						
220	1 15	1 15	0·9998 / 0·0218	19·996	219·960	0·436	N37E						
	1 15						N						
240	1 0	1 15	0·9998 / 0·0218	19·996	239·956	0·436	N43E						
	1 30						N10E						
260	1 0	1 15	0·9998 / 0·0218	19·996	259·952	0·436	N13E						
	1 30						N24E						
280	1 30	1 30	0·9997 / 0·0262	19·994	279·946	0·524	N15E						
	1 30						N25E						

P.T.O.

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 322 Date Surveyed 21/9/70

Total Depth 344 Depth Surveyed To 340'

Casing Depth 140' (Approx) Surveyed By V. M. FREESTONE.

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/W
300	1 45	1 37½	0·9996 0·0284	19·992	299·88	0·568	~~015~~ N15E	N20E					
	1 30						N25E						
320	1 30	1 15	0·9998 0·0218	19·996	319·934	0·436	N25E						
	1 0						N30E						
340	1 0	1 0	0·9998 0·0175	19·996	339·930 103·6	TOTAL DEFL. = 6·854 0·350	N40E	N30E	0·8660 0·5000	5·935	3·427	1·50 5·935	1·04 3·427

NOTE:-
A BEARING OF N30E
HAS BEEN ASSUMED AS
THE DIRECTION OF DEVIATION
- BECAUSE OF VARIATION
IN READINGS.

D.D.H:- 322

N E N S

100

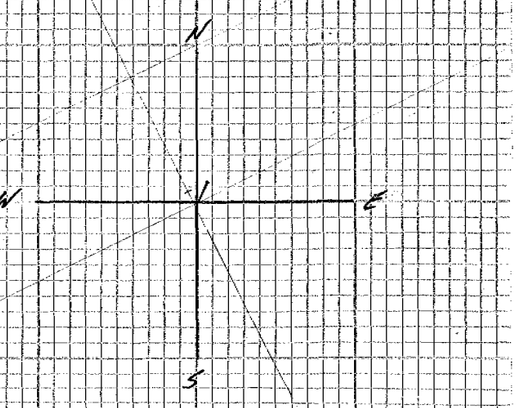
200

300

400

B B

D.D.H. - 322
TOTAL DEPTH:- 344'
SURVEYED TO:- 340'
DATE SURVEYED:- 21/9/70
CASING TO:- 140' (APPROX)



DIAMOND DRILL HOLE NO. 321

LOCATION: No. 3 Orebody

CO-ORDINATES: 110201.8N 100602.4E

R.L.: 395.9 1207 + 3.3 = 124.0 m Tallaro

DATE COMMENCED: 19th June, 1970.

DATE COMPLETED: 7th July, 1970.

FINAL DEPTH: 868 Feet 264.6

DATE SURVEYED:

LOGGED BY: P. Le Messurier

385.9

DRILL HOLE No. 321

SAMPLE No.	FROM FEET	TO FEET	CORE RECOVERY FEET	CORE RECOVERY %	WO_3	Mo	GEOLOGICAL DESCRIPTION	FRACTURING
	745	767.5	13.5	13.5			QUARTZITE 745 - 767.5	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 767.5 - 785.5 233.9	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

SAMPLE NO.	FROM FEET	TO FEET	LENGTH FEET	WIDTH FEET	WO_3	Mo	%	GEOLOGICAL DESCRIPTION	FRACTURING
	0	10	0	0				No Core	No Core - Surface soil, sand, clay, weathered rock.
	10	20	10	4				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.
	29	58	19	19					QUARTZITE, fine micaceous, part blotchy with micaceous blebs, part thinly banded and partly shaley. Ironstaining decreasing down unit, number of open joints also decreases.
	58	94	36	36					QUARTZITE, fine light grey, generally blotchy but with a few shaley bands, very micaceous, thin carbonate veins and joint fillings with some pyrite.
	94	131.5	37.5	37					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.
	131.5	137	5.5	5.5					QUARTZITE, fine generally very tierbed texture showing disturbance and mobility, some pyroxene and ? epidote alteration. Pyrite moderately plentiful and in generally larger aggregates.
	137	182	45	44.5					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.
	182	204	22	22					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.
	204	346	142	141.5					QUARTZITE, lighter and colour medium and fine grained granular texture. A number of

SAMPLE No.	DEPTH FROM	DEPTH TO	CORE RECOVERY	CORE LOSS	ASSAYS WO_3	ASSAYS Mo	UNIT	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.	
	188-7	192-3							

SAMPLE NO.	FROM	TO	METRES	FEET	WO_3	Mo	LOG	CORE	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.	
		1972								
	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.	
		2084								
	684	716	32	31				BIOTITE HORNFELS 684 - 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.	
		2182								
	716	721	5	5				PYROXENE HORNFELS 716 - 721	PYROXENE HORNFELS, very altered to chlorite, strongly fractured and other hydrous Fe/Mg mineral, very mobile zone of autobrecciation and sheering and many contorted bands.	
		2198								
	721	746	25	25				QUARTZITE 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.	
		2274								
	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.	
		2298								

Major fracture 614' (187.15 m)

Major fracture 619' (188.67m)

Boundary Fault @ 677' (191.11 m)

Fault 648' (197.51 m)

Fault 632' (198.73 m)

Possible fault 668' (203.61 m)

Major fracture 676' (206.04 m)

Fault 708' (215.80 m)

Possible fault 721' (219.76 m)

Major Fracture 614' (187.15 m)

Major Fracture 619' (188.67 m)

Boundary fault @ 627' (191.11 m)

Fault 648' (197.51 m)

Fault 652' (198.73 m)

Possible fault 668' (203.61 m)

Major fracture 676' (206.04 m)

Fault 708' (215.80 m)

Possible fault 721' (219.76 m)

DIAMOND DRILL HOLE SUMMARY

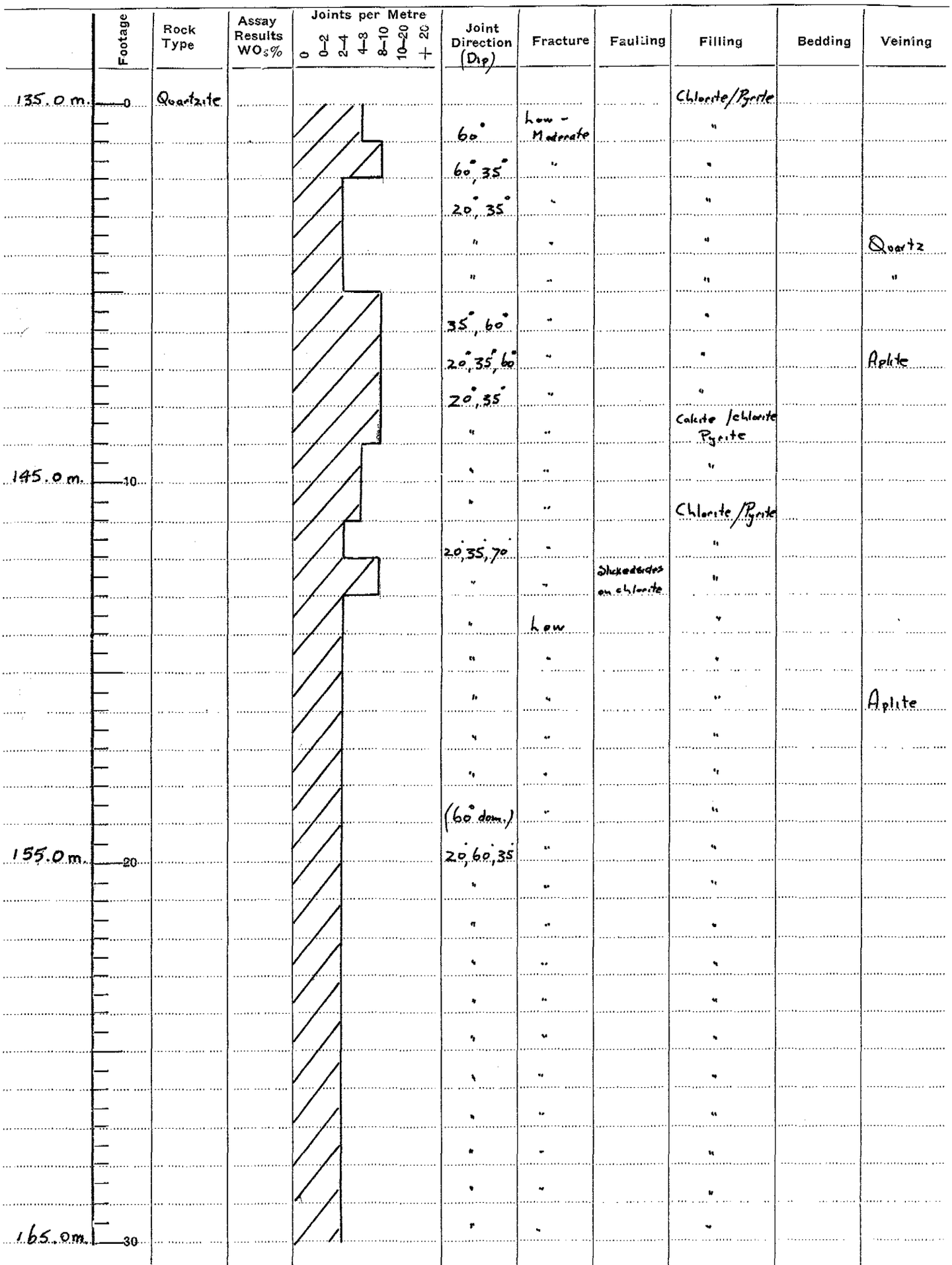
D.D.H. 321 FINAL DEPTH 264.6 m.

CO-ORDINATES N 110 201.8 E 100602.4 RELATIVE LEVEL 120.7 m.

DATE COMMENCED 19/6/70 DATE COMPLETED 7/7/70

DATE SURVEYED

LOCALITY: N° 3 OREBODY



	Footage	Rock Type	Assay Results WO₃%	Joints per Metre (0 / 0–2 / 2–4 / 4–8 / 8–10 / 10–20 / + 20)	Joint Direction (Dip)	Fracture	Faulting	Filling	Bedding	Veining
135.0 m.	0	Quartzite						Chlorite/Pyrite		
					60°	Low - Moderate		"		
					60°, 35°	"		"		
					20°, 35°	"		"		
					"	"		"		Quartz
					"	"		"		"
					35°, 60°	"		"		
					20°, 35°, 60°	"		"		Aplite
					20°, 35°	"		"		
					"	"		Calcite / chlorite Pyrite		
145.0 m.	10				"	"		"		
					"	"		Chlorite / Pyrite		
					20°, 35°, 70°	"		"		
					"	"	Slickensides on chlorite	"		
					"	Low		"		
					"	"		"		
					"	"		"		Aplite
					"	"		"		
					"	"		"		
					(60° dom.)	"		"		
155.0 m.	20				20°, 60°, 35°	"		"		
					"	"		"		
					"	"		"		
					"	"		"		
					"	"		"		
					"	"		"		
					"	"		"		
					"	"		"		
					"	"		"		
					"	"		"		
					"	"		"		
165.0 m.	30				"	"		"		

DIAMOND DRILL HOLE SUMMARY

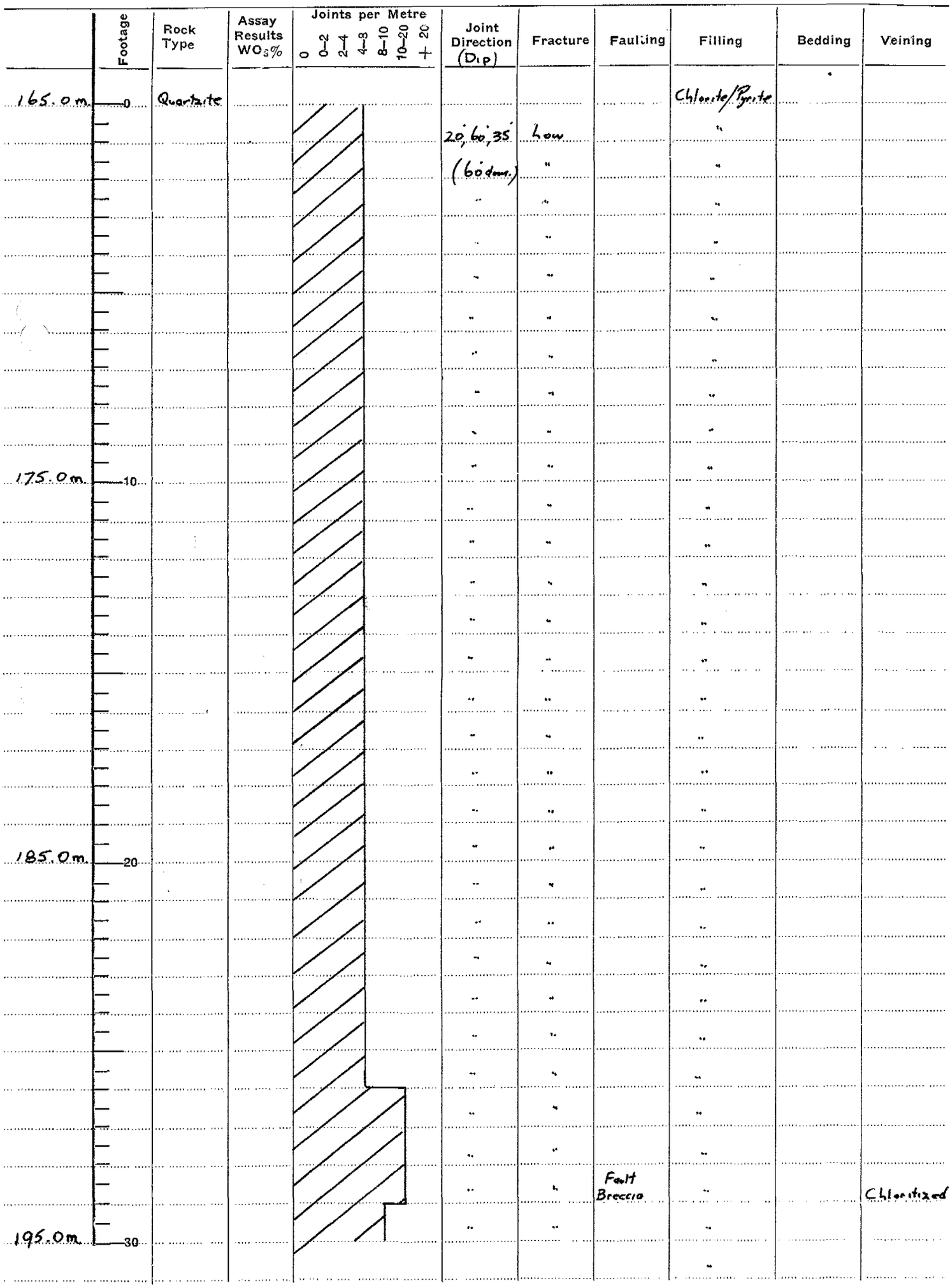
D.D.H. 321 FINAL DEPTH 264.6 m.

CO-ORDINATES N 110201.8 E 100602.4 RELATIVE LEVEL 120.7 m.

DATE COMMENCED 19/6/70 DATE COMPLETED 7/7/70

DATE SURVEYED

LOCALITY: N° 3 OREBODY



DIAMOND DRILL HOLE SUMMARY

D.D.H. 321 FINAL DEPTH 264.6 m.

CO-ORDINATES N 110201.8 E 100602.4 RELATIVE LEVEL 120.7 m.

DATE COMMENCED 19/6/70 DATE COMPLETED 7/7/70

DATE SURVEYED

LOCALITY: N° 3 OREBODY

	Footage	Rock Type	Assay Results WO_3%	Joints per Metre (0 | 0–2 | 2–4 | 4–8 | 8–10 | 10–20 | 20 +)	Joint Direction (Dip)	Fracture	Faulting	Filling	Bedding	Veining
195.0 m	0	Quartzite								
		"			20, 60, 35	Low		Chlorite/Pyrite		
197.0 m		"			"	"		"		
		Pyroxene Hornfels								
	10									
	20									
	30									

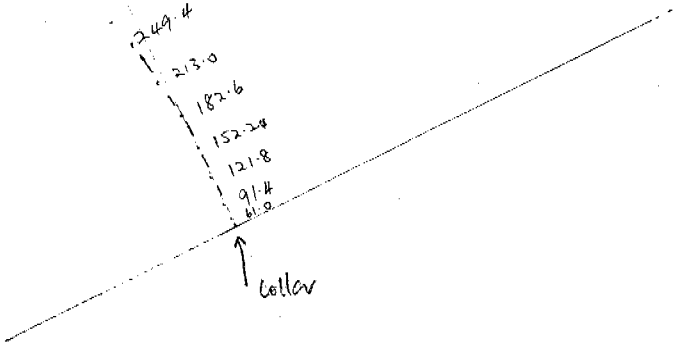
DDH 321

Scale 1:500

Plan View

Total depth : 868 264.58 m

survey To : 820 249.94 m



DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 321 Date Surveyed 11-8-70

Total Depth 868 Depth Surveyed To 820

Casing Depth _____ Surveyed By W. M. FREESTONE.

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
	0	OPEN				22	80	0 15	
	1	"				23	100	[POSSIBLY MOVING]	
	2	"				24	100	0 15	
	3	CLOSED				25	120	0 30	
	4	"				26	140	0 45	
	5	"				27	160	1 0	
	6	MOVING				28	180	1 15	
	7	10	0 15			29	200	1 30	N30W
	8	20	0 15			30	200	1 30	N30W
	9	"				31	220	1 15	N26W
	10	"				32	240	1 30	N35W
	11	"				33	260	2 0	N26W
	12	"				34	280	[MOVING]	
	13	"				35	280	2 30	N27W
	14	"				36	300	3 0	N23W
	15	"				37	300	3 0	N23W
	16	"				38	320	3 15	N25W
	17	"				39	340	3 15	N26W
	18	"				40	360	3 45	N26W
	19	MOVING				41	380	3 45	N27W
	20	40	0 15			42	400	3 45	N29W
	21	60	0 15			43	400	3 45	N29W

REMARKS:-

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 321 Date Surveyed 11-8-70

Total Depth 868 Depth Surveyed To 820

Casing Depth _____ Surveyed By V. M. FREESTONE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
	44	420	3 45			66	760	5 0	N32W
	45	440	3 45	N24W		67	780	5 0	N35W
	46	460	3 45	N24W		68	780	5 0	N35W
	47	480	4 0	N22W		69	800	5 15	N35W
	48	500	4 15	N25W		70	820	5 15	N35W
	49	500	4 15	N25W		71	820	5 15	N35W
	50	520	4 30	N29W		72	800	5 15	N35W
	51	540	4 15	N28W		73	780	5 0	N35W
	52	560	4 30	N30W		74	760	5 0	N36W
	53	MOVING				75	740	4 45	N31W
	54	580	4 45	N31W		76	720	4 45	N31W
	55	580	4 45	N31W		77	700	4 45	N35W
	56	~~680~~	4 45	N31W		78	680	4 45	N36W
	57	600	4 45	N31W		79	660	4 45	N35W
	58	620	5 0	N35W		80	640	4 45	N35W
	59	640	5 0	N34W		81	620	4 45	N36W
	60	660	5 15	N35W		82	600	4 45	N31W
	61	680	4 45	N35W		83	580	4 45	N32W
	62	680	4 45	N35W		84	560	4 30	N25W
	63	700	4 45	N35W		85	540	4 30	N27W
	64	720	4 45	N32W		86	520	4 15	N25W
	65	740	4 45	N34W		87	500	4 15	N25W

REMARKS:- _____

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 321 Date Surveyed 11-8-70

Total Depth 868 Depth Surveyed To 820

Casing Depth _____ Surveyed By V. M. FREESTONE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
	88	480	4 0	N24W		110	60	0 15	
	89	460	3 45	N24W		111	40	MOVING	
	90	440	3 45	N20W		112	20	0 15	
	91	420	3 45	N28W		113	10	0 15	
	92	400	3 30	N26W		114			
	93	380	3 30	N25W		115			
	94	360				116			
	95	340				117	OPEN		
	96	320				118	"		
	97	300	3 0	N25W					
	98	280	2 30	N25W					
	99	260	2 0	N27W					
	100	240	2 0	N36W					
	101	220	1 45	N25W					
	102	200	1 30	N25W					
	103	180	1 15						
	104	160	1 0						
	105	140	0 45						
	106	120	0 45						
	107	100	0 15						
	108	80	0 15						
	109	80	0 15						

REMARKS :- _____

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 321 Date Surveyed 11-8-70

Total Depth 868 2646 Depth Surveyed To 820 2499.94

Casing Depth _____ Surveyed By V.M. FREESTONE.

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/W
20	0 15	0 15	1.000 0.0044	20	20	0.088							
	0 15												
40	0 15	0 15	1.000 0.0044	20	40	0.088							
60	0 15	0 15	1.000 0.0044	20	60	0.088							
	0 15												
80	0 15	0 15	1.000 0.0044	20	80	0.088							
	0 15												
100	0 15	0 15	1.000 0.0044	20	100	0.088							
	0 15												
120	0 30	0 30	1.000 0.0087	20	120	0.174							
	0 45												
140	0 45	0 45	0.9999 0.0131	19.998	139.998	0.262							
	0 45												
16	1 0	1 0	0.9998 0.0175	19.996	159.994	0.350							
	1 0												
180	1 15	1 15	0.9998 0.0218	19.996	179.990	0.436							
	1 15												
200	1 30	1 30	0.9997 0.0262	19.994	199.984 (60.95)	(2.186) 0.524	N30W	337½ N27½W	0.8870 0.4617	1.9390	1.0093	1.9390	1.0093
	1 30						N25W						
220	1 15 1 37½		0.9996 0.0284	19.992	219.976	0.568	N26W	N25½W	0.9026 0.4305	0.5127	0.2445	2.4517	1.2538
	1 45						N25W						
240	1 30	1 45	0.9995 0.0305	19.990	239.966	0.610	N35W?	N25½W	0.9026 0.4305	0.5506	0.2626	3.0023	1.5164
	2 0						N26W?						
260	2 0	2 0	0.9994 0.0349	19.988	259.954	0.698	N26W	N26½W	0.8949 0.4462	0.6246	0.3114	3.6269	1.8278
	2 0						N27W						
280	2 30	2 30	0.9990 0.0436	19.980	279.934	0.872	N25W	N25W	0.9063 0.4226	0.7903	0.3685	4.4172	2.1963
	2 30												

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 321 Date Surveyed 11-8-70

Total Depth 868 Depth Surveyed To 820

Casing Depth _____ Surveyed By V. M. FREESTONE.

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/W
300	3 0	3 0	0·9986 / 0·0523	19·972	91·141 / 299·906	1·046	N23W	346 N24W	0·9135 / 0·4067	0·9555	0·4254	1·64 / 5·3727	·8 / 2·6217
	3 0						N25W						
320	3 15	3 15	0·9984 / 0·0567	19·968	319·874	1·134	N25W	N25W	0·9063 / 0·4226	1·0277	0·4792	6·4001	3·1008
340	3 15	3 15	0·9984 / 0·0567	19·968	339·842	1·134	N26W	N26W	0·8988 / 0·4384	1·0192	0·4971	7·4196	3·5980
360	3 45	3 30	0·9981 / 0·0610	19·962	359·804	1·220	N26W	N26W	0·8988 / 0·4384	1·0965	0·5348	8·5161	4·1328
380	3 45	3 37½	0·9980 / 0·0632	19·960	379·764	1·264	N27W	N26W	0·8988 / 0·4384	1·1361	0·5541	9·6522	4·6869
	3 30						N25W						
400	3 45	3 37½	0·9980 / 0·0632	19·960	121·83 / 399·724	1·264	N29W	333 N27½W	0·8870 / 0·4617	1·1212	0·5836	3·25 / 10·7734	1·61 / 5·2705
	3 30						N26W						
420	3 45	3 45	0·9979 / 0·0654	19·958	419·682	1·308		N26W	0·8988 / 0·4384	1·1756	0·5734	11·95	5·8439
	3 45						N28W						
440	3 45	3 45	0·9979 / 0·0654	19·958	439·640	1·308	N24W	N22W	0·9272 / 0·3746	1·2128	0·4900	13·16	6·3339
	3 46						N20W						
460	3 45	3 45	0·9979 / 0·0654	19·958	459·598	1·308	N24W	N24W	0·9135 / 0·4067	1·1948	0·5320	14·36	6·8659
	3 45						N24W						
480	4 0	4 0	0·9976 / 0·0698	19·952	479·550	1·396	N22W	N23W	0·9205 / 0·3907	1·2850	0·5454	15·64	7·4113
	4 0						N24W						
500	4 15	4 15	0·9973 / 0·0741	19·946	152·24 / 499·496	1·482	N25W	325 N25W	0·9063 / 0·4226	1·3431	0·6263	5·17 / 16·98	2·45 / 8·0376
	4 15						N25W						
520	4 30	4 22½	0·9971 / 0·0763	19·942	519·438	1·526	N29W	N27W	0·8810 / 0·4540	1·3597	0·6928	18·34	8·7304
	4 15						N25W						
540	4 15	4 22½	0·9971 / 0·0763	19·942	539·382	1·526	N28W	N27½W	0·8870 / 0·4617	1·3536	0·7045	19·70	9·4349
	4 30						N27W						
560	4 30	4 30	0·9969 / 0·0785	19·938	559·318	1·570	N30W	N29½W	0·8704 / 0·4924	1·3665	0·7731	21·06	10·2080
	4 30						N25W						

DIAMOND DRILL HOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 321 Date Surveyed 11-8-70

Total Depth 868 Depth Surveyed To 820

Casing Depth _____ Surveyed By V. M. FREESTONE.

Depth	Drift Angle	Mean Drift Angle	Cos Sine	Vert. Depth	True Vert. Depth	Defl.	Drift Direc.	Mean Drift Direc.	Cos Sine	Co-Ords. N/S	Co-Ords. E/W	Sum of Co-Ords. N/S	Sum of Co-Ords. E/W
580	4 45	4 45	0·9966 / 0·0828	19·932	579·250	1·656	N31W	N31½W	0·8526 / 0·5225	1·4119	0·8653	22·47	11·07
	4 45						N32W						
600	4 45	4 45	0·9966 / 0·0828	19·932	182·6 599·182	1·656	N31W	329 N31W	0·8572 / 0·5150	1·4195	0·8528	7·28 23·89	3·64 11·93
	4 45						N31W						
620	5 0	4 52½	0·9964 / 0·0850	19·928	619·110	1·700	N35W	N35½W	0·8141 / 0·5807	1·3840	0·9872	25·27	12·91
	4 45						N36W						
640	5 0	4 52½	0·9964 / 0·0850	19·928	639·038	1·700	N34W	N34½W	0·8241 / 0·5664	1·4080	0·9629	26·6764	13·88
	4 45						N35W						
660	5 15	5 0	0·9962 / 0·0872	19·924	658·962	1·744	N35W	N35W	0·8192 / 0·5736	1·4287	1·0003	28·1051	14·88
	4 45						N35W						
680	4 45	4 45	0·9966 / 0·0828	19·932	678·894	1·656	N35W	N35½W	0·8141 / 0·5807	1·3481	0·9616	29·4532	15·84
	4 45						N36W						
700	4 45	4 45	0·9966 / 0·0828	19·932	213·30 698·826	1·656	N35W	325 N35W	0·8192 / 0·5736	1·3566	0·9499	9·39 30·81	5·12 16·79
	4 45						N36W						
720	4 45	4 45	0·9966 / 0·0828	19·932	718·758	1·656	N32W	N31½W	0·8526 / 0·5225	1·4119	0·8653	32·22	17·65
	4 45						N31W						
740	4 45	4 45	0·9966 / 0·0828	19·932	738·690	1·656	N34W	N32½W	0·8434 / 0·5373	1·3967	0·8898	33·62	18·54
	4 45						N31W						
760	5 0	5 0	0·9962 / 0·0872	19·924	758·614	1·744	N32W	N34W	0·8290 / 0·5592	1·4458	0·9752	35·06	19·52
	5 0						N36W						
780	5 0	5 0	0·9962 / 0·0872	19·924	778·538	1·744	N35W	N35W	0·8192 / 0·5736	1·4287	1·0003	36·49	20·52
	5 0						N35W						
800	5 15	5 15	0·9958 / 0·0915	19·916	798·454	1·830	N35W	325 N35W	0·8192 / 0·5736	1·4991	1·0497	37·99	21·57
	5 15						N35W						
820	5 15	5 15	0·9958 / 0·0915	19·916	246·4 818·370	1·830	N35W	325 N35W	0·8192 / 0·5736	1·4991	1·0497	12·04 39·49	6·9 22·62

D.H. :- 321.

W E N S

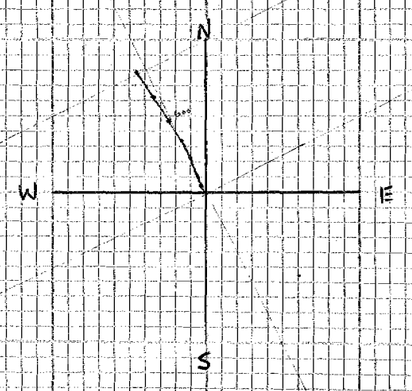
100
200
300
400
500
600
700
800

D.D.H. : 321

DATE SURVEYED :- 11-8-70

TOTAL DEATH :- 868' (264.5

DEPTH OF SURVEY :- 820'



DIAMOND DRILL HOLE NO. 320

LOCATION:	No. 3 Orebody
CO-ORDINATES:	100,498.22E: 110,199.83N
R.L.:	386.67 Feet 117.8 121.1 121.1
DATE COMMENCED:	25th May, 1970.
DATE COMPLETED:	17th June, 1970.
FINAL DEPTH:	857 Feet 261.2
DATE SURVEYED:	30th April, 1970.
LOGGED BY:	P. Le Messurier.

- 16'

310.67

					WO_3	Mo		
	0	10	10	-			No Core	No Core, surface soil, clay and very weathered rock.
	10	52	42	32			QUARTZITE 10 - 198 3-1 6a-3	QUARTZITE, strongly weathered but still massive, well developed shaley banding in part, variable red and yellow ironstaining.
	52	76	24	23				QUARTZITE, very clayey and ironstained in part but generally maintaining massive form, some shaley sections. A number of coarse grained quartz veins with pyrite.
	76	141	65	63				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.
	141	159	18	18				QUARTZITE, medium grained granular appearance, light grey, some darker fine patches. Irregular chlorite-epidote alteration associated with fractures.
	159	198	29	28				QUARTZITE, fine grained dark grey shaley, numerous pyrite veinlets and also thin bands on apparent bedding.
	198	200	2	2			PYROXENE HORNFELS 198 - 204 62-2	PYROXENE HORNFELS, Biotite Hornfels interbedded
A2898	200	202	2	2	0.05	(0.01		and intermixed, general bedding at about 40°
A2899	202	204	2	2	0.05	0.013		to L.C.A. some irregular quartz and calcite blebs and lenticles, often with associated sulphide. Upper contact gradational and comformable!
A2900	204	206	2	2	0.49	(0.01	SKARN 204 - 218 (A Lens) 66-4	SKARN, medium and coarse grained garnet pyroxene
A2901	206	208	2	2	0.10	(0.01		about equal percentage, much silica with sulphide
A2902	208	209	1	1	0.08	0.010		coarse grained scheelite throughout. Very
A2903	209	210	1	1	0.76	0.023		siliceous aplite 208 - 209'.
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	BIOTITE HORNFELS 218 - 235.5 71-8	BIOTITE HORNFELS-PYROXENE HORNFELS, interbedded
A2909	220	222	2	2	0.08	0.015		and intermixed.
	222	224	2	2				

SAMPLE No.	FT.	FT.	FEET	FEET	WO_3	Mo		DESCRIPTION
	224	235.5	11.5	11.5				BIOTITE HORNFELS, massive fine grained very siliceous and grades to quartzite in part.
	235.5	248 95-6	12.5	12.5			QUARTZITE	QUARTZITE, very fine and highly micaceous with much biotite and muscovite, grades to biotite hornfels.
	248	265	17	17			BIOTITE HORNFELS 248 - 283 86.2	BIOTITE HORNFELS, fine grained massive siliceous Pegmatite band - 258.5 - 259.
	265	267	2	2				GRANITE, medium grained variable mineralogy.
	267	283	16	16				BIOTITE HORNFELS. with many irregular pyroxene hornfels bands, some siliceous zones. Aplite 270.5 - 271.5
	283	293 89.3	10	10			BIOTITE/PYROXENE HORNFELS	BIOTITE/PYROXENE HORNFELS, medium grained quite granular texture - very similar to B Meta Volcanics.
	293	308 93.9	15	15			GRANITE	GRANITE, very variable grainsize and mineralogy, some porphyritic bands, some biotite rich bands, zones of epidote alteration, lower contact shows considerable interaction and mobility.
	308	369 112.5	61	60			B META VOLCANICS	B META VOLCANICS, 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	376 114.6	7	7			PYROXENE HORNFELS	PYROXENE HORNFELS, fine grained in part, similar to above volcanics in texture.
	376	380 115.8	4	4			BIOTITE HORNFELS	BIOTITEHORNFELS, ranging from massive to thin banded very minor pyroxene.
A3081	380	382	2	2	0.09	(0.01	SKARN B Lens	PYROXENE SKARN, very fine grained garnet minor constituent very intermixed and gradational banding. A few coarser patches disseminated scheelite with percentage increasing with grainsize.
A3082	382	384	2	2	0.23	(0.01		
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		

SAMPLE No.	FROM	TO	WIDTH	CORE LENGTH	ASSAY WO_3	ASSAY Mo		GEOLOGICAL DESCRIPTION	FRACTURING
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	7.1m @ 0.86		
A3129	581	583	2	2	0.78	0.035			
A3130	583	585	2	2	0.97	0.032			
A3131	585	586.2 (1918.7)	1.2	1.2	0.77	0.020			
A3132	586.2	590	3.8	3.8	0.02	(0.01		LIMESTONE	LIMESTONE, finely recrystallised well banded.
A3133	590	593	3	3	0.03	(0.01			
A3134	593	596.7 (1819)	3.7	3.7	0.01	(0.01			
A3135	596.7	599	2.3	2.3	0.62	0.023			PYROXENE SKARN, generally as similar unit
A3136	599	601	2	2	0.75	0.037			above, abundant scheelite but no molybdenite.
A3137	601	603	2	2	0.71	0.037			
A3138	603	605 (1834)	2	2	0.55	0.026			
A3139	605	607	2	2	0.32	0.010		BANDED HORNFELS	BANDED PYROXENE, CALCITE & BIOTITE HORNFELS,
A3140	607	608	1	1	0.34	(0.01			generally pyroxene rich, fine grained garnet
A3141	608	610	2	2	0.06	(0.01			common in upper 3 feet where scheelite
A3142	610	612	2	2	0.06	(0.01			plentiful.
	618.7 (1886)	622	3.3	3.3				GRANITE	GRANITE, fine to medium grainsize with very cloudy texture with abundant evidence of assimilation and pyroxene common. Margins clear and straight.
	622 (1896)	628	6	6					PYROXENE HORNFELS, fine grained minor biotite bands.
	628 (1914)	632.5	4.5	4.5				GRANITE	GRANITE, very variable texture and mineralogy- evidence of assimilation or granitisation. Molybdenite and pyrite fairly common, margins diffuse.
	632.5 (1928)	663.3 (2022)	30.8	30					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 difuse boundarie Many contortions and mobile features. Minor scheelite in the graniterich bands. Granite band 638 - 640 , very variable and diffuse margins.
A3143	663.7	665.5	1.8	1.8	2.54	0.063			BANDED HORNFELS, chiefly garnet and calcite
A3144	665.5	667	1.5	1.5	0.08	(0.01			hornfels with lesser biotite and pyroxene
A3145	667	669	2	2	1.78	0.031			hornfels, abundant scheelite in garnet bands.
A3146	669	671	2	2	2.52	0.054			

SAMPLE No.	FROM FEET	TO FEET	LENGTH FEET	CORE FEET	WO_3	Mo	GEOLOGICAL DESCRIPTION	FRACTURES
A3087	392	394	2	2	0.04	(0.01	LIMESTONE 392 - 449 119.5 136.8	LIMESTONE, recrystallised in part, well banded with dark chloritic and micaceous bands, irregular calcite and chlorite veins.
A3088	394	396	2	2	0.02	(0.01		
	396	449	53	53				
	449	452	3	3			PYROXENE HORNFELS	PYROXENE HORNFELS, highly altered limestone with much pyroxene and minor biotite.
	452	474	22	20			BIOTITE HORNFELS 452 - 488'-4 148.7	BIOTITE HORNFELS, poorly banded with some pyroxene rich bands, many chlorite and calcite bands and veins.
	474	488	14	14				BIOTITE HORNFELS, siliceous, fine grained biotite in irregular bands and spots.
	488	514 186.7	26	26			BIOTITE PYROXENE HORNFELS	BIOTITE PYROXENE HORNFELS, irregular interbeds of pyroxene and biotite rich section, some irregular calcite blebs.
	514	522	8				PYROXENE GARNET HORNFELS 514 - 552.5 168.4	PYROXENE GARNET HORNFELS, fine pyroxene rich
A3061	522	524	2		0.09	(0.01		siliceous rock with minor fine garnet with
A3089	524	526	2		0.57	(0.01		many irregular blebs ovoids and fragments of
A3090	526	528	2		0.43	(0.01		calcite with garnet and pyroxene replacement
A3091	528	530	2	2	0.10	(0.01		and reaction rims grades very gradually to
A3092	530	532	2	2	0.08	(0.01		skarn by the reduction in number of ovoids
A 3093	532	534	2	2	0.06	(0.01		and slight increase in grainsize, disseminated
A3094	534	536	2	2	0.07	(0.01		scheelite, more abundant with coarse garnet and
A3095	536	538	2	2	0.14	(0.01		in some ovoids.
A3109	538	540	2	2	0.07	(0.01		
A3110	540	542	2	2	0.05	(0.01		
A3111	542	544	2	2	0.04	(0.01		
A3112	544	546	2	2	0.04	(0.01		
A3113	546	548	2	2	0.06	(0.01		
A3114	548	550	2	2	0.16	(0.01		
A3115	550	552.5	2.5	2.5	0.28	0.010		
A3116	552.5	556	3.5	3.5	0.06	(0.01	BIOTITE PYROXNE HORNFELS 552.5 - 563 171.6	BIOTITE PYROXENE HORNFELS, irregularly intermixed and some garnet and calcite-minor ovoids and scheelite.
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	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.
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		

					WO_3	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	Granitoid texture.
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	Magnetite prominant
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	Massive Magnetite & silica, granular texture.
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	Magnetite in granitised textured bands, becoming massive in part, some pyrite, normal calcite pyroxene garnet banding still present.
A3176	724	725.5	1.5	1.5	0.16	0.010	
A3177	725.5	726.5	1	1	0.12	(0.01	
A3178	72615	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	Granitised magnetite rich band, M
A3185	738.5	740	1.5	1.5	1.52	0.048	Massive magnetite
A3186	740	742	2	2	0.07	0.010	Numerous bands with granitised texture and
A3187	742	744	2	2	0.07	0.019	abundant magnetite, considerable pyroxene.
	744	752	8	8			Appears to follow previous carbonate bands. Contact with underlying granite shows some banding but generally clear . No real evidence of assimilation.

SAMPLE No.	FROM	TO	WIDTH	WO_3	Mo
	752	857	105	104	
	229.2				

GEOLOGICAL DESCRIPTION — FRACTURING

GRANITE, massive medium to coarse grained with grainsize 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.

DIAMOND DRILL HOLE ASSAY SHEET

HOLE No. 320

LOGGED BY P. Le Messurier

Sample No.	FOOTAGES From	To	Length	ASSAY WO_3	Mo	L X A	REMARKS
A2898	200	202	2 } .05	0.05	(0.01		
A2899	202	204	2	0.05	0.013		
A2900	204	206	2 } .25	0.49	(0.01		
A2901	206	208	2	0.10	(0.01		
A2902	208	209	1	0.08	0.01		
A2903	209	210	1	0.76	0.023	0.76	'A' Lens - 9 Feet at 0.96% WO_3
A2904	210	212	2	0.72	0.024	1.44	
A2905	212	214	2	0.59	0.04	1.18	
A2906	214	216	2	0.44	0.017	0.88	
A2907	216	218	2	2.2	0.046	4.40	
A2908	218	220	2 } .08	0.08	(0.01		
A2909	220	222	2	0.08	0.015		
A3081	380	382	2 } .16	0.09	(0.01		
A3082	382	384	2	0.23	(0.01		
A3083	384	386	2	1.80	0.029	3.60	'B' Lens - 8 Feet at 1.09% WO_3
A3084	386	388	2	0.61	0.012	1.22	
A3085	388	390	2	0.53	0.01	1.06	
A3086	390	392	2	1.41	0.019	2.82	
A3087	392	394	2 } .03	0.04	(0.01		
A3088	394	396	2	0.02	(0.01		
A3061	522	524	2	0.09	(0.01		
A3089	524	526	2 } .50	0.57	(0.01	1.14	4' at 0.5% WO_3
A3090	526	528	2	0.43	(0.01	0.86	
A3091	528	530	2 } .09	0.10	(0.01		
A3092	530	532	2	0.08	(0.01		
A3093	532	534	2 } .06	0.06	(0.01		
A3094	534	436	2	0.07	(0.01		
A3095	536	538	2 } .10	0.14	(0.01		
A3109	538	540	2	0.07	(0.01		
A3110	540	542	2 } .04	0.05	(0.01		
A3111	542	544	2	0.04	(0.01		
A3112	544	546	2 } .05	0.04	(0.01		
A3113	546	548	2	0.06	(0.01		
A3114	548	550	2 } .23	0.16	(0.01		
A3115	550	552;5	2.5	0.28	0.01		
A3116	552.5	556	3.5	0.06	(0.01		
A3117	556	560	4	0.06	(0.01		
A3118	560	562	2 } .07	0.08	0.019		
A3119	562	563	1	0.05	(0.01		

DIAMOND DRILL HOLE ASSAY SHEET

HOLE No. 320

LOGGED BY P. Le Messurier

Sample No.	FOOTAGES From	To	Length	ASSAY WO_3	Mo	L X A	REMARKS
A3120	563 (171.6)	565	2 } .42	0.47	0.01	0.94	
A3121	565 (172.2)	567	2	0.37	0.034	0.74	
A3122	567 (172.8)	569	2 } 1.25	0.50	0.035	1.00	
A3123	569 (173.4)	571	2	1.99	0.040	3.98	
A3124	571 (174.0)	573	2 } .81	0.55	0.019	1.10	C_2 lens
A3125	573 (174.6)	575	2	1.07	0.039	2.14	~~C_1 Lens~~ -
A3126	575 (175.3)	577	2 } .97	1.01	0.041	2.02	23.2 Feet at
A3127	577 (175.9)	579	2	0.92	0.035	1.84	0.86% WO_3
A3128	579 (176.5)	581	2 } .83	0.88	0.052	1.76	Mo: 0.039
A3129	581 (177.0)	583	2	0.78	0.035	1.56	
A3130	583 (177.7)	585	2 } .90	0.97	0.032	1.94	
A3131	585 (178.3)	586.2 (178.7)	1.2	0.77	0.020	0.92	44' @ 0.60%
A3132	586.2 (178.7)	590	3.8	0.02	(0.01		
A3133	590 (179.8)	593	2 } .01	0.03	(0.01		
A3134	593 (180.7)	596.7	3.7	0.01	(0.01		
A3135	596.7 (181.9)	599	2.3 } .68	0.62	0.023	1.43	
A3136	599 (182.6)	601	2	0.75	0.037	1.50	C_2 Lens -
A3137	601 (183.2)	603	2 } .63	0.71	0.037	1.42	11.3 feet at
A3138	603 (183.8)	605	2	0.55	0.026	1.10	0.57% WO_3
A3139	605 (184.4)	607	2 } .32	0.32	0.010	0.64	Mo: 0.044
A3140	607 (185.0)	608 (185.3)	1	0.34	(0.01	0.34	
A3141	608 (185.3)	610 (185.9)	2 } .06	0.06	(0.01		
A3142	610 (185.9)	612	2	0.06	(0.01		
A3572	658 (200.5)	660	2 } .03	0.05	(0.01		'D' Lens ?
A3573	660 (201.2)	662	2	0.02	(0.01		
A3574	662 (201.8)	663.7	1.7 } 1.28	0.02	(0.01		
A3143	663.7 (202.3)	665.5	1.8	2.54	0.063	4.572	
A3144	665.5 (202.9)	667	1.5 } 1.005	0.08	(0.01	0.12	
A3145	667 (203.3)	669	2	1.78	0.031	1.56	
A3146	669 (203.9)	671	2 } 1.50	2.52	0.054	5.04	
A3147	671 (204.5)	672.5	1.5	0.14	0.018	0.21	32.3'
A3148	672.5 (205.0)	674	1.5 } 1.024	1.97	0.05	2.955	at
A3149	674 (205.4)	675	1	0.14	0.012	0.14	1.2% WO_3
A3150	675 (205.7)	676	1 } .78	1.69	0.043	1.69	
A3151	676 (206.0)	677.5	1.5	0.18	(0.01	0.27	
A3152	677.5 (206.5)	679.5	2 } .52	0.43	0.011	0.86	
A3153	679.5 (207.1)	681	1.5	0.64	0.013	0.96	
A3154	681 (207.6)	683	2 } .17	0.09	0.022	0.18	
A3155	683 (208.2)	685	2	0.26	(0.01	0.52	
A3156	685 (208.8)	686 (209.0)	1	4.8	0.086	4.8	

DIAMOND DRILL HOLE ASSAY SHEET

HOLE No. 320

LOGGED BY P. Le Messurier

Sample No.	FOOTAGES From	To	Length	ASSAY WO_3	Mo	L X A	REMARKS
A3157	686	688	2	2.4	0.049	4.8	
A3158	688	690	2	3.0	(0.01	6.0	
A3159	690	692	2	1.19	0.033	2.38	
A3160	692	693.7	1.7	0.46	0.02	0.782	
A3161	693.7	695	1.3	0.19	(0.01	0.22	
A3162	695	696	1	1.84	0.042	1.84	
A3163	696	698	2	0.06	(0.01	0.12	6' at 0.05% WO_3
A3164	698	700	2	0.05	(0.01	0.10	
A3165	700	702	2	0.04	(0.01	0.08	
A3166	702	705.3	3.3	5.2	0.084	17.16	
A3167	705.3	707	1.7	4.6	0.076	7.82	
A3168	707	709	2	2.2	(0.01	4.4	
A3169	709	710	1	0.19	0.11	0.19	
A3170	710	713	3	0.46	0.015	1.38	
A3171	713	716	3	0.46	0.015	1.38	
A3172	716	718	2	0.51	0.017	1.02	20' at 1.77% WO_3
A3173	718	720	2	0.38	0.01	0.76	
A3174	720	722	2	0.49	0.016	0.98	
A3175	722	724	2	0.07	0.014	0.14	
A3176	724	725.5	1.5	0.16	0.01	0.24	6.5' at 0.01% WO_3
A3177	725.5	726.5	1	0.12	(0.01	0.12	
A3178	726.5	728.5	2	0.13	0.013	0.13	
A3179	728.5	730.5	2	0.32	0.021	0.64	
A3180	730.5	731.5	2	1.34	0.032	2.68	
A3181	731.5	733.5	2	0.06	(0.01	0.12	11.5' at 0.81% WO_3
A3182	733.5	734.5	2	1.62	0.03	3.24	
A3183	734.5	736.5	2	0.07	(0.01	0.14	
A3184	736.5	738.5	2	0.18	0.011	0.36	
A3185	738.5	740	1.5	1.52	0.048	2.28	
A3186	740	742	2	0.07	0.01	0.14	
A3187	742	744	2	0.07	0.019	0.14	

76.3 Feet at 1.11% WO_3

76.3 at 1.04 if the 5' Mo assay is taken at 4

DDH 320

Major fracture 232' (76.81 m)

Possible fault 239' (78.94 m)

Major fracture 288' (87.78 m)

Major fracture 318' (96.93 m)

Major fracture 332' (101.19 m)

Fault 409' (124.66 m)

Fault 431' (137.46 m)

Extremely broken around recemented with carborate

clinohumite some breccia between 469' (142.95 m) - 473' (144.17 m)

Possible fault in ore at 523' (159.41 m)

Major fracture 638' (194.46 m)

Major fracture 718' (218.84 m) (in ore).

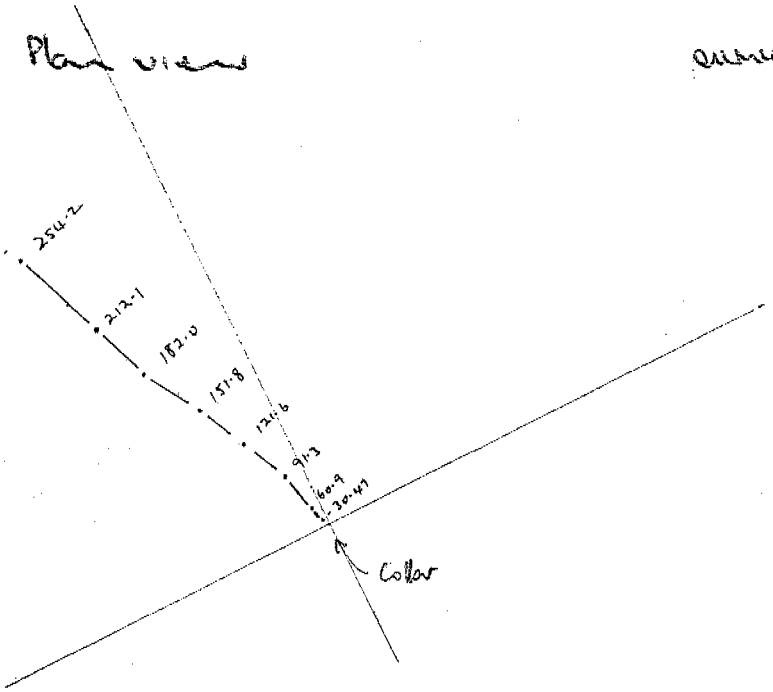
DDM 320

Scale 1:5000

Plan view

total depth: 857' 261.2 m

surveyed to: 840' 256.03 m



D.D.H.:- 320
DATE :- 18/6/70
SURVEYED TO :- 840'

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	4	5	6	7	8	9	10	11	12
Depth	Course Length	Drift Angle	Cosine Sine	~~Cotangent~~ ~~Tangent~~ Mean Vertical Depth	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine Sine	Cotangent Tangent	Deflection
20	20	0 45	0.9999 0.0131	19.998	19.998	19.998	0.2620	N 60 W	0.5000 0.8660	0.5000 0.8660	0.2620
		Not Clear					–	–			
40	20	1 0	0.9998 0.0175	19.996	19.996	39.994	0.3500			0.1219 0.9925	0.6120
		1 0			19.996		0.3500	S 83 W	0.1219 0.9925	~~0.1219~~ ~~0.9925~~	
60	20	1 0		19.996	19.996	59.990	0.3500	N 47 W	0.6820 0.7314	0.6820 0.7314	0.9620
		Not clear					–	–			
80	20	1 0		19.996	19.996	79.986	0.3500	N 53 W	0.6018 0.7986	0.6018 0.7986	1.3120
		Not clear						–		–	
100	20	1 15	0.9998 0.0218	19.996	19.996	30.47 99.982	0.4073 0.4360	322 N 38 W	0.7880 0.6157	0.8111 0.5821	1.7193
		1 15			19.996		0.4360	N 38 W	0.7880 0.6157		
		1 0			19.996		0.3500	N 31 W	0.8572 0.5150		
120	20	1 15		19.995	19.996	119.977	0.4800 0.4360	N 45 W	0.7071 0.7071	0.6749 0.7365	2.1993
		1 30	0.9997 0.0262		19.994		0.5240	N 50 W	0.6428 0.7660		
140	20	1 45	0.9995 0.0305	19.990	19.990	139.967	0.6100	N 38 W	0.7880 0.6157	0.8472 0.5191	2.8093
		1 45			19.990		0.6100	N 25 W	0.9063 0.4226		
160	20	2 0	0.9994 0.0349	19.988	19.988	159.955	0.6980	N 30 W	0.8660 0.5000	0.8703 0.4924	3.5073
		2 0			19.988		0.6980	N 29 W	0.8746 0.4848		
180	20	2 30	0.9990 0.0436	19.978	19.980	179.933	0.9160 0.8720	N 37 W	0.7986 0.6018	0.8186 0.5732	4.4233
		2 45	0.9988 0.0480		19.976		0.9600	N 33 W	0.8387 0.5446		
200	20	3 30	0.9981 0.0610	19.962	19.962	60.93 199.895	1.2200	3 19 N 41 W	0.7547 0.6561	0.7469 0.6647	5.6433
		3 30			19.962		1.2200	N 43 W	0.7547 0.6561		
		3 30			19.962		1.2200	N 43 W	0.7314 0.6820		
220	20	3 45	0.9979 0.0654	19.955	19.958	219.850	1.3520 1.3080	N 43 W	0.7314 0.6820	0.7253 0.6883	6.9953
		4 0	0.9976 0.0698		19.952		1.3960	N 44 W	0.7193 0.6947		
240	20	4 15	0.9973 0.0741	19.942	19.946	239.792	1.5260 1.4820	N 41 W	0.7547 0.6561	0.7309 0.6816	8.5213
		4 30	0.9969 0.0785		19.938		1.5700	N 45 W	0.7071 0.7071		
260	20	5 0	0.9962 0.0872	19.924	19.924	259.716	1.7440	N 41 W	0.7547 0.6561	0.7309 0.6816	10.2653
		5 0			19.924		1.7440	N 45 W	0.7071 0.7071		
280	20	5 45	0.9950 0.1002	19.900	19.900	279.616	2.0040	N 45 W	0.7071 0.7071	0.7071 0.7071	12.2693
		5 45			19.900		2.0040	N 45 W	0.7071 0.7071		

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13	14	15	16
Co-ordinate Difference		Rectangular Difference	
N	S	E	W	N	S	E	W
0.1310			0.2269	0.1310			0.2269
	0.0427		0.3474	0.0883			0.5743
0.2387			0.2560 ~~0.26~~	0.3270			0.8303
0.2106			0.2795	0.5376			1.1098
0.3209			0.2508	.261 0.8585	*	100	.41 1.3606
0.3239			0.3535	1.1824			1.7141
0.5168			0.3756	1.6992			2.0897
0.6075			0.3437	2.3067			2.4334
0.7498			0.4998	3.0565			2.9332
0.9112			0.8004	1.21 3.9677 *		200	1.14 3.7336
0.9806			0.9306	4.9483			4.6642
1.1153			1.0012	6.0636			5.6654
1.3162			1.1887	7.3798			6.8541
1.4170			1.4170	8.7968			8.2711

D.D.H. 320
DATE : 18/6/70
SURVEYED TO :- 840'

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	4	5	6	7	8	9	10	11	12				
Depth	Course Length	Drift Angle	Cosine Sine	~~Contangent~~ ~~Tangent~~ mean Vert. Depth.	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine Sine	Mean Cosine Sine ~~Contangent~~ ~~Tangent~~	Deflection				
300	20	° ' 6 0	0.9945 0.1045	19.890	19.890	91.3 299.506	2.0900	313 N47W	0.6820 0.7314	0.6734 0.7392	14.3593	1.4254	1.5449	3.11 10.2222 *	2.99 9.8160
		6 0			19.890		2.0900	N47W	0.6820 0.7314						
		6 0			19.890		2.0900	N49W	0.6561 0.7547						
320	20	6 0		19.886	19.890	319.392	2.1340 2.0900	N46W	0.6947 0.7193	0.6819 0.7312	16.4933	1.4552 ~~1.4825~~	1.5607~~4~~ ~~1.5350~~	11.6774	11.3764
		6 15	0.9941 0.1089		19.882		2.1780	N48W	0.6691 0.7431						
340	20	6 0		19.881	19.890	339.273	2.1770 2.0900	N49W	0.6561 0.7547	0.6626 0.7489	18.6703	1.4425 ~~1.4293~~	1.6303 ~~1.6430~~	13.1199	13.0067
		6 30	0.9936 0.1132		19.872		2.2640	N48W	0.6691 0.7431						
360	20	6 30		19.867	19.872	359.140	2.3070 2.2640	N50W	0.6428 0.7660	0.6153 0.7875	20.9773	1.4195 ~~1.4829~~	1.8168 ~~1.7672~~	14.5394	14.8235
		6 45	0.9931 0.1175		19.862		2.3500	N54W	0.5878 0.8090						
380	20	6 30	0.9936 0.1132	19.867	19.872	379.007	2.3070 2.2640	N50W	0.6428 ~~0.5878~~ 0.7660 ~~0.8090~~	0.6428 0.7660	23.2843	1.4829	1.7672	16.0223	16.5907
		6 45			19.862		2.3500	N50W	0.6428 0.7660						
400	20	6 30		19.872	872 19.~~862~~	171.57 398.879	2.2640	311 N49W	0.6561 0.7547	~~0.6333~~ ~~0.6367~~ 0.7728	25.5483	1.4338	1.7496	5.32✓ 17.4561 *	5.59 18.3403
		6 30			19.872		2.2640	N49W	0.6561 0.7547						
		6 30			19.872		2.2640	N54W	0.5878 0.8090						
420	20	6 45		19.862	19.862	418.741	2.3500	N52W	0.6157 0.7880	0.6292 0.7770	27.8983	1.4469	1.8260	18.9030	20.1663
		6 45			19.862		2.3500	N50W	0.6428 0.7660						
440	20	7 0	0.9925 0.1219	19.850	19.850	438.591	2.4380	N54W	0.5878 0.8090	0.5878 0.8090	30.3363	1.4330	1.9723	20.3360	22.1386
		7 0			19.850		2.4380	N54W	0.5878 0.8090						
460	20	7 0		19.850	19.850	458.441	2.4380	N52W	0.6157 0.7880	0.6017 0.7985	32.7743	1.4669	1.9467	21.8029	24.0853
		7 0			19.850		2.4380	N54W	0.5878 0.8090						
480	20	7 15	0.9920 0.1262	19.834	19.840	478.275	2.5670 2.5240	N55W	0.5736 0.8192	0.5736 0.8192	35.3413	1.4724	2.1029	23.2753	26.1882
		7 30	0.9914 0.1305		19.828		2.6100	N55W	0.5736 0.8192						
500	20	7 30		19.825	19.828	151.79 498.100	2.6393 2.6100	302 N58W	0.5299 0.8480	0.5445 0.8384	37.9806	1.4371	2.2128	7.53 24.7124 *	8.66 28.4010
		7 30			19.828		2.6100	N58W	0.5299 0.8480						
		7 45	0.9908 0.1349		19.818		2.6980	N55W	0.5736 0.8192						
520	20	8 0	0.9903 0.1392	19.806	19.806	517.906	2.7840	N55W	0.5736 0.8192	0.5591 0.8289	40.7646	1.5565	2.2806	26.2689	30.6816
		8 0			19.806		2.7840	N57W	0.5446 0.8387						
540	20	8 15	0.9897 0.1435	19.800	19.794	537.706	2.8270 2.8700	N56W	0.5592 0.8290	0.5592 0.8290	43.5916	1.5808	2.3436	27.8497	33.0252
		8 0			19.806		2.7840	N56W	0.5592 0.8290						
560	20	8 15		19.800	19.794	557.506	2.8270 2.8700	N59W	0.5150 0.8572	0.5298 0.8479	46.4186	1.4977	2.4335	29.3474	35.456

D.D.H. – 320

DATE: – 18/6/70

SURVEYED TO – 840'

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	4	5	6	7	8	9	10	11	12
Depth	Course Length	Drift Angle	Cosine Sine	~~Cont~~ Tangent mean Vert Depth	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine Sine	Mean Cosine ~~Cont~~ Tangent	Deflection
560		8 0	0·9903 0·1392		19·806		2·7840	N57W	0·5446 0·8387		
580	20	8 30	0·9890 0·1478	19·780	19·780	577·286	2·9318	N55W	0·5736 0·8192	0·5736 0·8192	49·3504
		8 30			19·780		2·9318	N55W	0·5736 0·8192		
600	20	8 30		19·780	19·780	597·066 (182.0)	2·9318	3·5 N55W	0·5736 0·8192	0·5736 0·8192	52·2822
		8 30			19·780		2·9318	N55W	0·5736 0·8192		
		8 30			19·780		2·9318	N55W	0·5736 0·8192		
620	20	8 30		19·787	19·780	616·853	2·9009 2·9318	N5HW	0·5878 0·8090	0·5807 0·8141	55·1831
		8 15	0·9897 0·1435		19·794		2·8700	N55W	0·5736 0·8192		
640	20	8 30		19·780	19·780	636·633	2·9318	N55W	0·5736 0·8192	0·5736 0·8192	58·1149
		8 30			19·780		2·9318	N55W	0·5736 0·8192		
660	20	8 45	0·9884 0·1521	19·768	19·768	656·401	3·0420	N55W	0·5736 0·8192	0·5736 0·8192	61·1569
		8 45			19·768		3·0420	N55W	0·5736 0·8192		
680	20	8 45		19·768	19·768	676·169	3·0420	N55W	0·5736 0·8192	0·5736 0·8192	64·1989
		8 45			19·768		3·0420	N55W	0·5736 0·8192		
700	20	8 45		19·768	19·768	695·937 (212.1)	3·0420	N16W?	0·9613 0·2756	0·9717 0·2744	67·2409
		8 45			19·768		3·0420	N16W?	0·9613 0·2756		
		8 45			19·768		3·0420	N7W?	0·9925 0·1219		
720	20	8 45		19·774	19·768	715·711	2·9869 3·0420	N63W	0·4540 0·8910	0·4303 0·9022	70·2278
		8 30	0·9890 0·1478		19·780		2·9318	N66W	0·4067 0·9135		
740	20	8 30		19·780	19·780	735·491	2·9318	N50W	0·6428 0·7660	0·7207 0·6839	73·1596
		8 30			19·780		2·9318	N37W?	0·7986 0·6018		
760	20	9 0	0·9877 0·1564	19·761	19·754	755·252	3·1202 3·1984	NH7W	0·6820 0·7314	0·6755 0·7372	76·2798
		8 45	0·9884 0·1521		19·768		3·0420	NH8W	0·6691 0·7431		
780	20	9 0	0·9877 0·1564	19·754	19·754	775·006	3·1984	NH7W	0·6820 0·7314	0·6755 0·7372	79·4782
		9 0			19·754		3·1984	NH8W	0·6691 0·7431		
800	20	9 30	0·9863 0·1650	19·726	19·726	794·732 (242.2)	3·3000	3·4 NH6W	0·6947 0·7193	~~0·6818~~ 0·7311	82·7782
		9 30			19·726		3·3000	NH6W	0·6947 0·7193		
		9 30			19·726		3·3000	N49W	0·6561 0·7547		
820	20	9 30		19·726	19·726	814·458	3·3000	N46W	0·6947 0·7193	0·6947 0·7193	86·0782
		9 30			19·726		3·3000	N46W	0·6947 0·7193		
840	20	9 45	0·9856 0·1693	19·712	19·712	834·170 (204.25)	3·3860	N46W	0·6947 0·7193	0·6947 0·7193	89·4642
		9 45			19·712		3·3860	N46W			

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13	14		15		16
Coordinate Difference			Co-ordinates of Drill Holes		
S	S	W	S	W	
		2·4017	31·0291		37·8604
		2·4017	9.97 32·7108 *		12.27 40·2621
		2·3646	34·3953		42·6237
		2·4017	36·0770		45·0254
		2·4920	37·8219		47·5174
		2·4920	39·5668		50·0094
		0·6826	12.96 42·5227 *		15.45 50·6920
		2·6948	43·8080		53·3868
		2·0050	45·9209		55·3918
		2·3002	48·0286		57·6920
		2·3579	50·1891		60·0499
		2·4126	15.98 52·4391 *		62·4625
		2·3737	54·7316		64·83
		2·4355	17.4 57·0838 *		20.5 67·2

GRAPH No. 901/P2A

DIAMOND DRILL HOLE NO. 319

LOCATION:	No. 3 Orebody
CO-ORDINATES:	100400.0E:110,201.7N
R.L.:	376.8 Feet 114.84 ? 118.1 3.29
DATE COMMENCED:	5th June, 1970
DATE COMPLETED:	9th July, 1970
FINAL DEPTH:	766 Feet 233.5
DATE SURVEYED:	30th April, 1970
LOGGED BY:	P. Le Messurier

86'

290 + 8 ?

SAMPLE No.	FROM	TO	CORE	TRUE WIDTH	WO_3	Mo	GEOLOGICAL DESCRIPTION	FRACTURING
	0	44					No Core, surface soil, clay and weathered rock.	
	44	59	15	5			BIOTITE/MUSCOVITE HORNFELS, fine grained slightly schistose rock, weathered and ironstained. Biotite spots prominent.	
	59	79	20	1			CLAY, white soft chalky clay, some carbonate.	
A3105	79	83	4	1	0.07	(0.01	GARNET/PYROXENE HORNFELS, very weathered to limonite clay, but remnants of solid garnet and pyroxene skarn. Scheelite in clay.	
A3106	83	84	1	1	0.09	(0.01		
A3107	84	86	2	1.5	0.14	0.012		
	86	89	3	2			BIOTITE/ACTINOLITE HORNFELS, strongly schistose hornfels with biotite pyroxene and actinolite tremolite.	
	89	95	6	4.5				
	95	104	9	8.5			BIOTITE HORNFELS 95 - 104 317 — BIOTITE HORNFELS, schistise well banded, fine grained biotite rich, minor muscovite and ? Tremolite/Actinolite.	
	104	123	19	18			BIOTITE/PYROXENE HORNFELS 104 - 123 375 — BIOTITE/PYROXENE HORNFELS, fine grained essentially massive, biotite predominant with variable pyroxene and amphibole (Actinolite). Two coarse pegmatitic siliceous aplites 113-114.5, and 121.5 to 122.	
	123	133	10	7			BIOTITE HORNFELS 123 - 133 405 — BIOTITE HORNFELS, strong fragmental texture, siliceous and pyroxene silica fragments, some irregular granitic bands to 2".	
	133	142	9	9			GRANITE 133 - 142 433 — GRANITE, very variable from a medium grained quartz diorite to very siliceous pegmatite, epidotised zones.	
	142	204	58	57			BIOTITE HORNFELS 142 - 253.7 993 — BIOTITE HORNFELS(Quartzite), a very siliceous fine grained rock with very variable biotite, ranging from very abundant to virtually nil. Very comfused fragmental texture in part, with biotite free fragments outstanding.	
	204	229	25	25			BIOTITE HORNFELS, very fine grained massive with abundant biotite evenly distributed throughout, one band of mottled siliceous type 209' to 210' and banded pyroxene rich band	

SAMPLE No.	FROM	TO	CORE INCHES	CORE FEET	WO_3	Mo	GEOLOGICAL DESCRIPTION	FRACTURING
							320.5' to 321'. A few quartz veins and many very fine quartz threads.	
	229	246	17	17			BIOTITE HORNFELS(Quartzite), a strongly mottled siliceous rock as above.	
	246	253.7	7.7	7.7			BIOTITE HORNFELS, fine grained, some pyroxene bands, Aplite 250.5 to 251.	
	253.7	255.2	1.5	1.5			GRANITE, medium grained, biotite rich finer aplitic margin.	
	255.2	265.5	10.3	10.3			BIOTITE/PYROXENE HORNFELS, fine grained irregularly interbanded with biotite generally predominant at top and pyroxene at base.	
	265.5	307.5	42	42			B META VOLCANICS, medium grained granular biotite pyroxene rock with eroded feldspar and typical volcanic texture, massive and essentially uniform in texture and mineralogy. Aplite band 284 - 285.7.	
	307.5	319	11.5	11.5			GRANITE, medium to coarse grained porphyritic in part. Some mafic rich sections. Contacts clean and sharp but finer and aplitic.	
	319	360.5	41.5	41			B META VOLCANICS, as above, but with much greater percentage of feldspar.	
A3188	360.5	362.5	2	2	0.07	0.016	BIOTITE HORNFELS, banded, fine grained.	
A3189	362.5	364	1.5	1.5	0.13	(0.01	PYROXENE HORNFELS, very fine green banded.	
A3190	364	366	2	2	0.13	(0.01	SKARN, fine to medium grained, pyroxene rich skarn, garnet fine grained and disseminated. Scheelite variably throughout unit because banded nearer base.	
A3191	366	368	2	2	0.48	0.016		
A3192	368	370	2	2	1.47	0.049		
A3193	370	372	2	2	0.32	0.013		
A3194	372	374	2	2	0.26	0.011		
A3195	374	376	2	2	0.45	0.022		
A3196	376	377	1	2	0.48	0.014		
A3197	377	378.5	1.5	1.5	0.05	(0.01	LIMESTONE, fine grained banded.	
A3198	378.5	380	1.5	1.5	0.09	(0.01	PYROXENE HORNFELS PYROXENE HORNFELS, very calcic, banded limestone with metasomatic alteration, some garnet bands,	

GRANITE 253.7 - 255.2 — 1.5 ft

BIOTITE/PYROXENE HORNFELS 255.2 - 265.5 — 10.3 ft

B META VOLCANICS 265.5 - 307.5 — 42 ft

GRANITE 307 - 319 — 11.5 ft

SKARN B LENS

LI

SAMPLE No.	FROM	TO	LENGTH	CORE RECOVERY	ASSAY WO_3	ASSAY Mo		GEOLOGICAL DESCRIPTION	FRACTURING
A3199	380	382	2	2	0.09	(0.01		minor scheelite.	
A3200	382	384	2	2	0.07	(0.01			
A3201	384	386	2	2	0.08	(0.01			
A3202	386	388	2	2	0.04	(0.01			
A3203	388	390	2	2	0.08	0.034			
A3204	390	392	2	2	0.05	(0.01			
	392	441.5	49.5	47			LIMESTONE 392 - 441.5 119.5 134.6	LIMESTONE, banded, recrystallised, generally metamorphosed and altered, many pyroxene and biotite rich bands. Very contorted structure in part.	
	441.5	465.5 1449	24	24			BIOTITE HORNFELS	BIOTITE HORNFELS, massive fine grained with very poorbanding of pyroxene hornfels.	
	465.5	479 1460	23.5	23			BIOTITE PYROXENE HORNFELS	BIOTITE PYROXENE HORNFELS, well banded in thin bands to 1" and 2".	
	479	505 1539	26	26			BIOTITE HORNFELS	BIOTITE HORNFELS, fine dark with disseminated biotite, some irregular pyroxene bands, many irregular calcite veins, a few calcite blebs and fragments in basal five feet.	
	505	517 1576	12	12			PYROXENE/GARNET HORNFELS	PYROXENE GARNET HORNFELS, a fine grained pyroxene and pyroxene/biotite hornfels with numerous calcite fragments and ovoids with garnet and pyroxene alterationl	
A3259	517	519	2	2	0.09	(0.01	SKARN C LENS	SKARN, fine grained pyroxene rich garnet less than 20%. Many irregular siliceous zones showing granitised texture, a few siliceous and carbonate veins. Very patchy disseminated scheelite with only basal 10 feet showing reasonable grade.	
A3260	519	521	2	2	0.74	0.018			
A3261	521	523	2	2	0.10	(0.01			
A3262	523	525	2	2	0.07	0.010			
A3263	525	527	2	2	0.13	(0.01			
A3264	527	529	2	2	0.10	0.015			
A3265	529	531	2	2	0.16	(0.01			
A3266	531	533	2	2	0.18	(0.01			
A3267	533	535	2	2	0.19	(0.01			
A3268	535	537	2	2	0.06	(0.01			
A3269	537	539	2	2	0.09	(0.01			
A3270	539	541	2	2	0.11	(0.01			
A3271	541	543	2	2	0.14	(0.01			
A3272	543	545	2	2	0.11	(0.01			
A3273	545	547	2	2	0.09	(0.01			
A3274	547	549	2	2	0.07	(0.01			
A3275	549	551	2	2	0.07	(0.01			

GEOLOGICAL SURVEY, PAPUA & NEW GUINEA. DRILL HOLE No. 319

SAMPLE No.	DEPTHS FROM	TO	LENGTH SAMPLED	LENGTH RECVD	ASSAYS WO_3	Mo		LOG	GEOLOGICAL DESCRIPTION	FRACTURING
A3276	551	553	2	2	0.07	0.015				
A3277	553	555	2	2	0.08	(0.01				
A3278	555	557	2	2	0.38	(0.01				
A3279	557	559	2	2	1.49	0.028	2.04m @ 1.21%			
A3280	559	561.7	2.7	2.7	1.62	0.049				
	171.2									
A3281	561.7	564	2.3	2.3	0.02	(0.01		LIMESTONE	LIMESTONE, fine grained recrystallised banded	
A3282	564	566	2	2	0.02	(0.01			minor alteration zones.	
	566	586	20	20						
A3283	586	588	2	2	0.01	(0.01				
A3284	588	590.5	2	.5	0.01	(0.01				
	180.0	902								
A3285	590.5	592	1.5	1.5	0.81	0.035		SKARN	SKARN, medium grained relatively garnet rich,	
A3286	592	594	2	2	0.69	0.038			may calcite bands, pyroxene bands increase	
A3287	594	596	2	2	0.27	(0.01	3.5m @ 0.49%		towards base, disseminated scheelite.	
A3288	596	598	2	2	0.42	0.01				
A3552	598	600	2	2	0.47	(0.01				
	182.9									
A3553	600	602	2	2	0.34	(0.01		GARNET PYROXENE HORNFELS	GARNET PYROXENE HORNFELS, strongly banded with	
A3554	602	604	2	2	0.18	(0.01			both minerals in approximately equal proportions.	
A3555	604	606	2	2	0.18	(0.01			A few biotite and carbonate bands towards base.	
A3556	606	608	2	2	0.06	(0.01			A little disseminated scheelite.	
A3557	608	610	2	2	0.05	(0.01				
	610	614	4	4						
	614	628	14	14					BIOTITE HORNFHS, thinly banded with numerous very fine bands of pyroxene hornfels parallel to original bedding. Joint planes appear to act as channelways.	
	628	638	10	10					PYROXENE HORNFELS, fine grained variable with some irregular bands of biotite hornfels.	
	638	641	3	3					BIOTITE HORNFELS, fine grained, a little murky pyroxene.	
	641	651.5	10.5	10					GRANITE, medium to coarse grained but very variable, mineralogy variable from biotite rich to quartz rich biotite poor. Feldspars often murky and rounded in shape, and in intergrowths with quartz.	

195.4

SAMPLE No.	FROM	TO	LENGTH SAMPLED	TRUE WIDTH	WO_3	Mo	GEOLOGICAL DESCRIPTION	FRACTURING
	651.5	658	6.5	6			BANDED HORNFELS 651.5 - 702	BANDED HORNFELS, fine grained biotite and pyroxene hornfels with numerous bands of garnet and calcite hornfels, banding irregular in size and composition. Disseminated scheelite in garnet bands. Core very badly broken and shows considerably clayey alteration. Chlorite clay and calcose joints and bands common.
A3558	658	660	2	2	0.1	(0.01		
A3559	660	662.5	2.5	2.2	0.99	0.022		
A3560	662.5	665	2.5	2.2	0.09	0.019		
A3561	665	670	5	3	0.11	0.014		
A3562	670	672	2	1	0.06	(0.01		
A3563	672	673	1	1	0.96	0.022		
A3564	673	674	1	1	0.05	(0.01		
A3565	674	675	1	1	0.21	0.018		
A3566	675	678	3	2.8	0.09	0.018		
A3567	678	680	2	2	1.21	0.036		
A3568	680	682	2	2	0.72	0.030		
A3569	682	684	2	2	0.09	0.021		
	684	688	4	4				
	688	702	14	8				BANDED HORNFELS, as above, but very highly broken and altered. Several thin granitic bands. Granitic veins contain prominant heamatite and minor magnetite.
	702	706	4	2				RUBBLE, very altered hornfels and granite, granite contact in this area.
	706	718	12	7				GRANITE, fine grained mafic, much chlorite and clay alteration, plentiful haematite and minor magnetite 706 - 710, very friable altered.
	718	766	48	12				GRANITE, highly altered soft and friable absorbent clay, numerous fine mafic bands.
								END OF HOLE

DIAMOND DRILL HOLE ASSAY SHEET

HOLE No. 319

LOGGED BY P. Le Messurier

Sample No.	FOOTAGES From	To	Length	ASSAY WO_3	Mo	L X A	REMARKS
A3105	79 (24.1)	83	4	0.07	(0.01		
A3106	83 (25.3)	84	1 } .12	0.09	(0.01		
A3107	84 (25.6)	86	2 }	0.14	0.012		
A3108	86 (26.2)	89 (27.1)	3	0.09	0.018		
A3188	360.5 (109.9)	362.5	2 }	0.07	0.016		
A3189	362.5 (110.5)	364	1.5 } 0.11	0.13	(0.01		
A3190	364 (110.9)	366	2 }	0.13	(0.01		
A3191	366 (111.5)	368	2 } .98	0.48	0.016	0.96	No: 0.021
A3192	368 (112.2)	370	2 }	1.47	0.049	2.94	
A3193	370 (112.8)	372	2 } .29	0.32	0.013	0.64	'B' Lens
A3194	372 (113.4)	374	2 }	0.26	0.011	0.52	11' at
A3195	374 (114.0)	376	2 } .46	0.45	0.022	0.90	0.58% WO_3
A3196	376 (114.6)	377 (114.9)	1 }	0.48	0.014	0.48	
A3197	377 (114.9)	378.5	1.5 } .07	0.05	(0.01		
A3198	378.5 (115.4)	380	1.5 }	0.09	(0.01		
A3199	380 (115.8)	382	2 } .08	0.09	(0.01		
A3200	382 (116.4)	384	2 }	0.07	(0.01		
A3201	384 (117.0)	386	2 } .06	0.08	(0.01		
A3202	386 (117.6)	388	2 }	0.04	(0.01		
A3203	388 (118.3)	390	2 } .06	0.08	0.034		
A3204	390 (118.9)	392 (119.5)	2 }	0.05	(0.01		
A3259	517 (157.6)	519	2 } .42	0.09	(0.01		
A3260	519 (158.2)	521	2 }	0.74	0.018		
A3261	521 (158.8)	523	2 } .08	0.10	(0.01		
A3262	523 (159.4)	525	2 }	0.07	0.010		
A3263	525 (160.0)	527	2 } .11	0.13	(0.01		
A3264	527 (160.6)	529	2 }	0.10	0.015		
A3265	529 (161.2)	531	2 } .17	0.16	(0.01		
A3266	531 (161.8)	533	2 }	0.18	(0.01		
A3267	533 (162.4)	535	2 } .12	0.19	(0.01		
A3268	535 (163.1)	537	2 }	0.06	(0.01		
A3269	537 (163.7)	539	2 } .10	0.09	(0.01		
A3270	539 (164.3)	541	2 }	0.11	(0.01		
A3271	541 (164.9)	543	2 } .13	0.14	(0.01		
A3272	543 (165.5)	545	2 }	0.11	(0.01		
A3273	545 (166.1)	547	2 } .08	0.09	(0.01		
A3274	547 (166.7)	549	2 }	0.07	(0.01		
A3275	549 (167.3)	551	2 } .07	0.07	(0.01		
A3276	551 (167.9)	553	2 }	0.07	0.015		
A3277	553 (168.5)	555 (169.2)	2 }	0.08	(0.01		

DIAMOND DRILL HOLE ASSAY SHEET

HOLE No. 319

LOGGED BY P. Le Messurier

Sample No.	FOOTAGES From	To	Length	ASSAY WO_3	Mo	L X A	REMARKS
A3278	555 169.1	557	2 } 1.58	0.38	(0.01	0.76	C_1 Lens -
A3279	557 169.8	559	2	1.49	0.028	3.58	6.7' at
A3280	559 170.4	561.7	2.7	1.62	0.049	4.37	~~1.45%~~ WO_3
A3281	561.7 171.2	564	2.3 } .02	0.02	(0.01		Mo: 0.038
A3282	564 171.9	566	2	0.02	(0.01		
A3283	586 178.6	588	2 } .01	0.01	(0.01		
A3284	588 179.2	590.5	2.5	0.01	(0.01		Mo: 0.038
A3285	590.5 180.0	592	1.5 } .74	0.81	0.035	1.21	
A3286	592 180.4	594	2	0.69	0.038	1.38	C_2 Lens -
A3287	594 181.0	596	2 } .35	0.27	(0.01	0.54	11.5' at
A3288	596 181.7	598	2	0.42	0.01	0.84	0.48% WO3
A3552	598 182.3	600	2 } .40	0.47	(0.01	0.94	
A3553	600 182.9	602 183.5	2	0.34	(0.01	0.68	
A3554	602 183.5	604	2 } .18	0.18	(0.01		
A3555	604 184.1	606	2	0.18	(0.01		
A3556	606 184.7	608	2 } .05	0.06	(0.01		
A3557	608 185.3	610 185.9	2	0.05	(0.01		
A3558	658 200.5	660	2	0.1	(0.01		
A3559	660 201.1	662.5	2.5	0.99	0.022	2.47	2.5' at 0.99% WO_3
A3560	662.5 201.9	665	2.5 } .09	0.09	0.019	0.23	
A3561	665 202.7	670	5	0.11	0.014	0.55	
A3562	670 204.2	672	2	0.06	(0.01	0.12	
A3563	672 204.8	673	1	0.96	0.022	0.96	
A3564	673 205.1	674	1 } .41	0.05	(0.01	0.05	3 at 0.45% WO_3
A3565	674 205.4	675	1	0.21	0.018	0.21	(0' 0.53%)
A3566	675 205.7	678	3	0.09	0.018	0.27	
A3567	678 206.6	680	2	1.21	0.036	2.42	4' at 0.96% WO_3
A3568	680 207.3	682 207.9	2 } .96	0.72	0.030	1.44	0.024% Mo
A3569	682 207.9	684 208.5	2	0.09	0.021		O lense
							~~22'~~ @ 0.40

DDH 319

Major fracture 131' (39.9 m)

Major fracture 276' (84.1 m)

Fault 366' (111.6 m)

Possible Fault 443' (133.0 m)

Possible Fault 485' (147.8 m)

Fault 498' (151.8 m)

Major fracture 523' (159.4 m)

Major fracture 628' (191.4 m)

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 319 Date Surveyed 13/7/70

Total Depth 766' Depth Surveyed To 640'

Casing Depth 120' Approx Surveyed By V. M. FREESTONE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
	0	OPEN				22	300	1 45	N43W
	1	OPEN				23	320	1 15	N39W
	2	OPEN				24	340	1 30	N36W
	3	closed				25	360	1 45	N40W
	4	"				26	380	2 0	N52W
	5	"				27	400	1 45	N37W
	6	"				28	420	1 45	N37W
	7	10'	0° 45'	S80E		29	440	2 0	N36W
	8	20	not	clear		30	460	2 30	N40W
	9	40	0			31	480	2 45	N40W
	10	60	0° 45'	N84E		32	500	3 0	N40W
	11	80	0° 30'	N9E		33	520	2 45	N42W
	12	100	0	—		34	540	3 0	N38W
	13	120	0 45	N14W		35	560	3 0	N40W
	14	140	0 45	N36W		36	580	3 0	N38W
	15	160	1 0	N40W		37	600	3 0	N36W
	16	180	1 0	N43W		38	620	3 0	N40W
	17	200	1 0	N49W		39	640	3 30	N42W
	18	220	1 0	N31W		40	640	3 30	N42W
	19	240	1 30	N54W		41	620	3 15	N43W
	20	260	1 30	N40W		42	600	3 15	N53W
	21	280	1 45	N42W		42½	600	3 5	N53W

REMARKS:- Because of the nature of the hole it was possible to get down to only 640'. (126' above bottom)

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 319 Date Surveyed 13/7/70

Total Depth 766' Depth Surveyed To 640'

Casing Depth 120' Approx Surveyed By V. M. FREESTONE.

Shot No.	Time	Depth	Defl. ° '	Direct.	Shot No.	Time	Depth	Defl. ° '	Direct
	44	580	3 15	N44W		66	200	1 0	N44W
	45	560	3 15	N39W		67	200	1 0	N42W
	46	540	3 15	N51W		68	180	0 45	N35W
	47	520	3 15	N55W		69	160	0 45	N33W
	48	500	3 0	N53W		70	140	0 45	N25W
	49	500	3 0	N54W		71	120	0 45	N35W
	50	480	2 45	N55W		72	100	0 45	—
	51	460	2 30	N45W		73	100	0 45	—
	52	440	2 15	N65W		74	80	0 45	—
	53	420	2 15	N55W		75	60	0 15	—
	54	400	2 0	N46W		76	40	0 30	
	55	400	2 0	N47W		77	20	0 15	
	56	380	1 45	N40W		78	10		
	57	360	2 0	N54W		79	Closed		
	58	340	2 0	N40W		80	"		
	59	320	1 45	N34W		81	"		
	60	300	1 30	N40W		82	OPEN		
	61	300	1 30	N36W		83	OPEN		
	62	280	1 30	N28W					
	63	260	1 15	N27W					
	64	240	1 30	N64W					
	65	220	1 15	N63W					

REMARKS:-

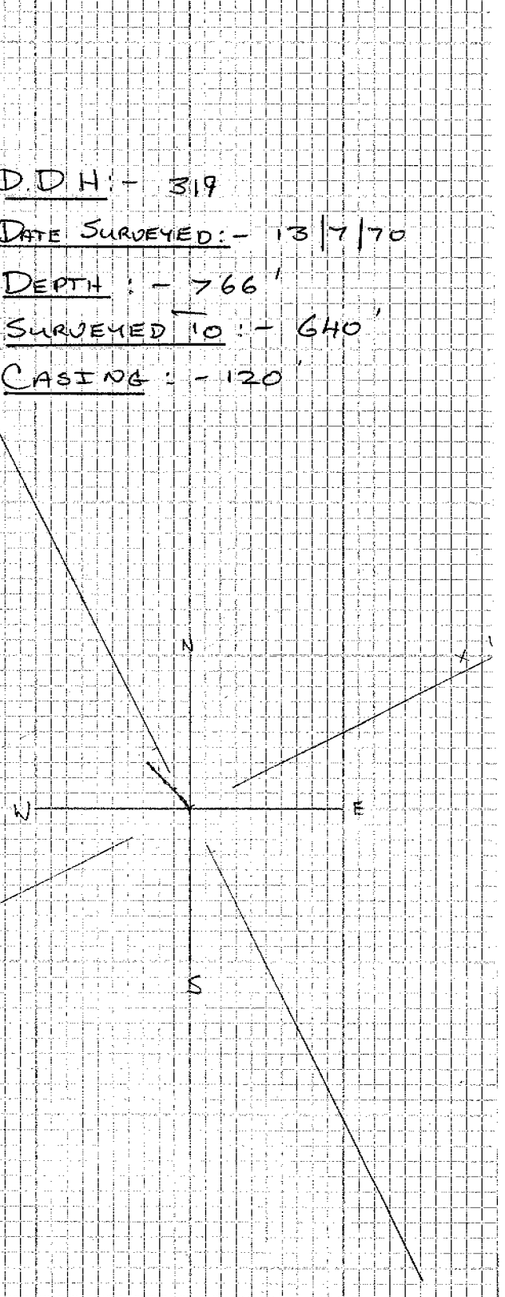
W E N S

DDH 319

100
200
300
400
500
600
700
800

B B

D.D.H:- 319
DATE SURVEYED:- 13/7/70
DEPTH :- 766'
SURVEYED TO :- 640'
CASING :- 120'



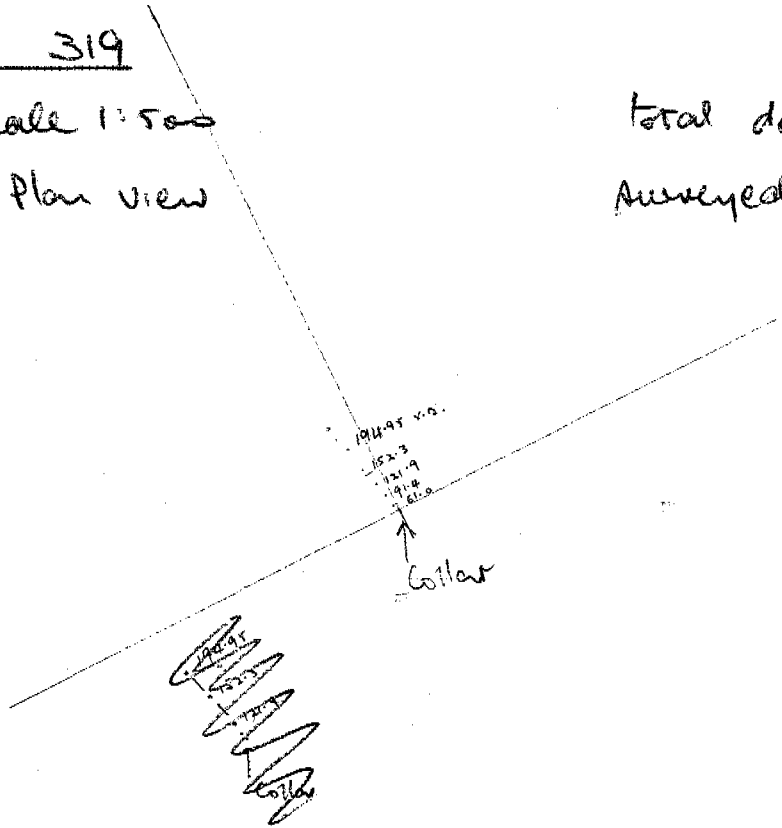
DDH 319

Scale 1:500

Plan view

Total depth : 766' 233.48 m

Surveyed to : 640' 195.07 m



DD.H. :- 319
DATE SURVEYED :- 13/7/70
DEPTH :- 766'
SURVEYED TO :- 640'
CASING : 120'

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
					Mean Drift angle					Mean Drift Direction		Co-ordinate Difference		Rectangular Difference	
Depth	Course Length	Deflection Angle		Sin		Cos	Tan	Dep. Sec. Factor	Dep. Sec. Diff.		Deflection	N	S	E	W	N	S	E	W
10	10	0	45	1·0000 / 0·0022	0	7½	10	10	0·0220		0·0220								
20	10			1·0000 / 0·0022	0	7½	10	20	0·0220		0·0440								
		0	15																
40	20	0	0	1·0000 / 0·0044	0	15	20	40	0·0880		0·1320								
		0	30																
60	20	0	45	1·0000 / 0·0087	0	30	20	60	0·1740		0·3060								
		0	15																
80	20	0	30	0·9999 / 0·0109	0	37½	19·998	79·998	0·2180		0·5240								
		0	45																
100	20	0	0	0·9999 / 0·0109	0	37½	19·998	99·996	0·2180		0·7420								
		0	45																
120	20	0	45	0·9999 / 0·0131	0	45	19·998	119·994	0·2620		1·0040								
		0	45																
140	20	0	45	0·9999 / 0·0131	0	45	19·998	* 139·992	0·2620	N86W / N25W	0·8617 / 0·5075	N30½W	1·2660	1·0909		0·6425	* 1·0909		0·6425
160	20	0	45	0·9998 / 0·0153	0	52½	19·996	159·988	0·3060	N40W / N33W	0·8030 / 0·5948	N36½W	1·5720	0·2457		0·1820	1·3366		0·8245
180	20	1	0	0·9998 / 0·0153	0	52½	19·996	179·984	0·3060	N43W / N35W	0·7771 / 0·6293	N39W	1·8780	0·2378		0·1426	1·5744		1·0171
200	20	1	0	0·9998 / 0·0175	1	0	19·996	* 60·95 / 199·980	0·3500	N49W / N44W	0·6884 / 0·7254	3°14 N46½W	2·2280	0·2409		0·2539	* 1°55 / 1·8153		1°39 / 1·2710
220	20	1	0	0·9998 / 0·0197	1	7½	19·996	219·976	0·3940	N31W / N63W	0·6820 / 0·7314	N47W	2·6220	0·2687		0·2882	2·0840		1·5592
		1	15																
240	20	1	30	0·9997 / 0·0262	1	30	19·994	239·970	0·5240	N54W / N64W	0·550 / 0·8572	N59W	3·1460	0·2699		0·1492	2·3539		2·0084
		1	30																
260	20	1	30	0·9997 / 0·0240	1	22½	19·994	259·964	0·4800	N40W / N27W	0·8339 / 0·5519	N33½W	3·6260	0·4003		0·2649	2·7542		2·2733
		1	15																
280	20	1	45	0·9994 / 0·0327	1	52½	19·988	279·952	0·654	N42W / N28W	0·8192 / 0·5736	N35W	4·2800	0·5337		0·3751	3·2899		2·6484
		1	30																

D.D.H. :- 319

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

1	2	3		4	5 Mean Drift Angle		6	7	8	9	10 mean Drift Direction	11 Cosine Sine mean Drift Direction	12	13 Co-ordinate Difference N	13 S	14 E	14 W	15 Rectangular Difference N	15 S	16 E	16 W
Depth	Course Length	Drift Angle		Cosine Sine			Vertical Depth	Course Length	Co-ordinate Variation	Drift Direction											
300	20	1	45	0·9996 0·0284	1	37½	19·992	* 299·944 (91·4)	0·568	N43W	N40½W	0·7604 0·6494	4·848	0·4319			0·3688	*3·7218 (1·13) ~~0·760~~			3·0172 (·92)
		1	30							N38W											
320	20	1	15	0·9997 0·0262	1	30	19·994	319·938	0·524	N39W	N36½W	0·8030 0·5948	5·372	0·4208			0·3117	4·1426			3·3289
		1	45							N34W											
340	20	1	30	0·9995 0·0305	1	45	19·990	339·928	0·610	N36W	N38W	0·7880 0·6157	5·982	0·4807			0·3756	4·6233			3·7045
		2	0							NHOW											
360	20	1	45	0·9994 0·0327	1	52½	19·988	359·916	0·654	N40W	N47W	0·6820 0·7314	6·636	0·4460			0·4783	5·0693			4·1828
		2	0							N54W											
380	20	2	0	0·9994 0·0327	1	52½	19·988	379·904	0·654	N52W	N46W	0·6947 0·7193	7·290	0·4543			0·4704	5·5236			4·6532
		~~2~~ 1	~~0~~ 45							N40W											
400	20	1	45	0·9994 0·0327	1	52½	19·988	* 399·892 (121·88)	0·654	N37W	319½ N41W	0·7490 0·6626	7·944	0·4878			0·4333	* 1·83 6·0134			1·55 5·0865
		2	0							N46W											
420	20	1	45	0·9994 0·0349	2	0	19·988	419·880	0·698	N37W	N46W	0·6947 0·7193	8·642	0·4849			0·5021	6·4983			5·5886
		2	15							N55W											
440	20	2	0	0·9993 0·0371	2	7½	19·986	439·866	0·742	N36W	~~N45W~~	0·7071 0·7071	9·384	0·5247			0·5247	7·0230			6·1133
		2	15							N65W ?											
460	20	2	30	0·9990 0·0436	2	30	19·980	459·846	0·872	N40W	NH2½W	0·7373 0·6756	10·256	0·6429			0·5891	7·6659			6·7024
		2	30							N46W											
480	20	2	45	0·9987 0·0502	2	52½	19·974	479·820	1·0040	N40W	NH6½W	0·6884 0·7254	11·260	0·6911			0·7283	8·3570			7·4307
		3	0							N53W											
500	20	3	0	0·9986 0·0523	3	0	19·972	* 152·33 499·792	1·046	NHOW	314 NH6½W	0·6884 0·7254	12·306	0·7201			0·7588	* 2·77 9·0771			2·50 8·1895
		3	0							N53W											
520	20	2	45	0·9986 0·0523	3	0	19·972	519·764	1·046	N42W	NH8½W	0·6626 0·7490	13·352	0·6931			0·7834	9·7702			8·9729
		3	15							N56W											
540	20	3	0	0·9985 0·0545	3	7½	19·970	539·734	1·090	N38W	NHH½W	0·7133 0·7009	14·442	0·7775			0·7640	10·5477			9·7369
		3	15							N51W											
560	20	3	0	0·9985 0·0546	3	7½	19·970	559·704	1·090	NHOW	N39½W	0·7716 0·6361	15·532	0·8410			0·6933	11·3887			10·4302
		3	15							N39W											
580	20	3	0	0·9985 0·0545	3	7½	19·970	579·674	1·090	N38W	319 NH1W	0·7547 0·6561	16·622	0·8226			0·7151	12·2113			11·1453
		3	15							NHHW											

D.D.H.:- 319

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET No. 1

1	2	3	4	5	6	7	8	9	10	11	12
Depth	Course Length	Drift Angle	Cosine Sine	Mean Drift Angle	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Mean Drift Direction	Cosine Mean Drift Direction	Dep. t'
600	20	3 0	0·9985 0·0545	3 7½	19·970	* 599·64	1·090	N 36 W	306 N44½W	0·7133 0·7009	17·712
		3 15						N 53 W			
620	20	3 0	0·9985 0·0545	3 7½	19·970	619·61	1·090	N 40 W	N41½W	0·7490 0·6626	18·802
		3 15						N 43 W			
640	20	3 30	0·9981 0·0610	3 30	19·962	* 639·576 (194·95)	1·220	N 42 W	N42W	0·7431 0·6691	20·022
		3 30						N 42 W			

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13	14			15	16		
	Latitude Difference				Rectangular Difference		
P	S	s	w	N	S	E	W
0·7775			0·7640	* 12·9888			11·9093
0·8164			0·7222	13·8052			12·6315
0·9066			0·8163	* 4·43 14·7118			4·10 13·4478

DIAMOND DRILL HOLE NO. 318

LOCATION:	No. 3 Orebody
CO-ORDINATES:	100,199.5E:110,200.4N
R.L.:	360.4 Feet 109.85 3.2 113.15
DATE COMMENCED:	June 29, 1970.
DATE COMPLETED:	July 27, 1970.
FINAL DEPTH:	342 Feet 104.2
DATE SURVEYED:	- 27-7-70.
LOGGED BY:	P. Le Messurier

2

285.4

SAMPLE No.	FROM	TO	CORE LENGTH	CORE LOSS	ASSAY	GEOLOGICAL DESCRIPTION	REMARKS
	0	75 22.8			No Core	No Core - surface soil and sand and weathered bedrock	
	75	82	7	3		META VOLCANICS, fine grained sandy textured chlorite rich rock, mica prominant and also plentiful fibrous Fe/Mg minerals. Ironstained and clayey at top and a few serpentinised joints.	
	82	86	4	2			
	86	92	6	5.8			
	92	104	12	11		META VOLCANICS, serpentinised and chloritised strongly brecciated with many angular fragments in quartz and calcite serpentinite matrix. Could represent major fault zone.	
	104	144 43.9	40	38		META VOLCANICS, generally finely granular and sandy in texture mica and chlorite both abundant a few minor mottled zones. Chloritic and serpentinous joints and fractures.	
	144 43.9	167	23	22		BIOTITE/PYROXENE HORNFELS, fine grained siliceous with biotite and pyroxene irregularly disseminated throughout, irregular blotching grades to well developed banding in part.	
	167	187	20	18		HORNFELS, very fine dark siliceous rock, generally with chlorite? biotite and pyroxene. Strongly fractured with numerous chloritic and serpentinous facings on joints. Altered to chloritic clay in part.	
	187 57.0	196 59.7	9	3		CLAY, chloritic highly altered, a few irregular fragments of aplite.	
	196	198 60.3	2	1.5		APLITE, medium grained, mixed mineralogy and texture.	
	198	221 67.3	23	22		PYROXENE HORNFELS, generally fine grained and thinly banded, affew biotite rich bands, occasional minor garnet, two bands of fine garnet show sparse scheelite over 1" lengths.	
	221	242 73.8	21	21		B META VOLCANICS, fine grained grading to medium at base, pyroxene and biotite crystals and flakes well developed in finer groundmass of some minerals and fine feldspar, irregular	

SAMPLE No.	FEET FROM	FEET TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS	GEOLOGICAL DESCRIPTION	FRACTURES
	242	247	5	5		GRANITE, medium to coarse grained orthoclase plagioclase about equal percentage, some porphyritic feldspar. Biotite very variable from abundant in some bands to virtually absent in others, marginal phase.	
	247	342	95	95		GRANITE, medium and coarse grained porphyritic orthoclase to 2" in equigranular plagioclase and quartz biotite chief accessory, some very minor variations in texture and mineralogy but general inpression massiveness and uniformity. Very minor aplite bands and one 1 foot band showing epidote alteration at 314'.	
						END OF HOLE	

DDH 318

Imcompetent ground 183' (55.8 m)

Fault 188' (57.3 m)

Fault 92' (111 m)

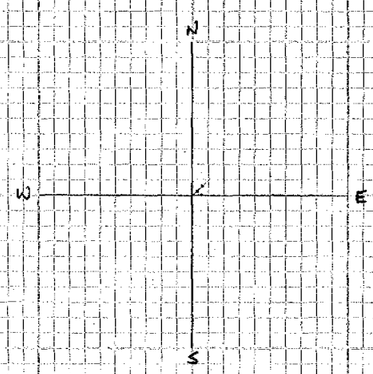
28' (33.8 m)

W E N S DDH 318

100

200

300



DDH. Nº. 318

TOTAL DEPTH:- 342'

SURVEYED TO: 120'

DATE OF SURVEY: 27/7/70

NOTE: BECAUSE OF A "CAVE-IN" THIS SURVEY WAS ONLY TAKEN TO 120'. ALSO THE FILM WAS NOT VERY CLEAR AND BECAUSE OF THE LOW DRIFT ANGLE THE VALUES FOR DIRECTION ARE IN QUESTION.

DDH 318

Scale 1:500

Plan view

total depth 342' 104.24m

survey to 120'

Assume vertical.

DDH. N°. 318.
TOTAL DEPTH : - 342'
SURVEYED TO:- 120'
DATE OF SURVEY:- 27/4/70.
CASING - 80' Approx

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET No. 1

1	2	3	4	5	6	7	8	9	10	11	12
Depth	Course Length	Drift Angle	Cosine Sine	Tangent	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine Sine	Tangent	Deflection
20	20	0 45									
		0 45									
40	20	0 45									
		0 45									
60	20	0 45									
		0 45									
80	20	0 45									
		0 45									
100	20	0 45									
		0 45									
120	20	0 45	0.9999 0.0131		119.988	119.988	1.572	045 N45E	0.7071 0.7071		1.11

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET No. 2

13	14			15			16
Coordinate Difference				Departure Differences			
S	E	W		N	S	E	W
				1.11		1.11	

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 318 Date Surveyed 24/7/70

Total Depth 342' Depth Surveyed To 120

Casing Depth 80' Approx. Surveyed By V. M. FREESTONE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct	
	0	OPEN				22	10	45°		
	1	OPEN				23	closed			
	2	OPEN				24	"			
	3	Closed.				25	"			
	4	"				26	OPEN			
	5	10'								
	6	20'	0° 45'	~~S 53 E~~ X						
	7	40	0 45	X						
	8	60	0 ~~45~~	~~N 50 E~~ X		Depth	Course Length	Drift ∠	Cosine Sine	True Vert Depth
	9	80	0 ~~45~~	~~N 20 E~~ X		0				
	10	100	0 45	N 43 E ✓		120	120	0 45	0.9999 0.0131	119.988
	11	100	0 45	N 43 E ✓						
	12	120	0 45	N 67 E ✓		Course Deviation	Drift Direction	Cos Sin		
	13	—				1.572	N 45 E	0.7071 0.7071	N 1.11	E 1.11
	14	—								
	15	—								
	16	120	0 45	N 11 E ✓						
	17	100	0 45	✓						
	18	80	0 45	N 70 E X						
	19	60	0 45							
	20	40	0 45							
	21	20	0 45							

REMARKS:- Camera — not able to go below 120. image not clear - This discrepancy in bearing & Because of this — ∠ was taken as being a constant 0° 45' and being bearing of N 45 E

DIAMOND DRILL HOLE NO. 317

LOCATION:	No. 3 Orebody
CO-ORDINATES:	100,200.55E: 110,000N
R.L.:	366.24 Feet (111.63 / 3.29) } 114.92 m
DATE COMMENCED:	21st April, 1970
DATE COMPLETED:	1st May, 1970
FINAL DEPTH:	250 Feet (76.2)
DATE SURVEYED:	
LOGGED BY:	P. Le Messurier

338.24 ?

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRILL #3 DRILL HOLE No.317

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
	0	28	28	0			No Core	Surface soil, clay and highly weathered volcanics.	
	28 (8.5)	92 (28.0)	64	44			VOLCANICS 28 - 98	VOLCANICS, fine felsic volcanics with abundant chlorite, very strongly altered and weathered. Numerous joints with limonite taining and strongly bleached and leached zones.	90% < 1" Strong jointing.
	92 (28.0)	127	35	14			GRANITE 98- 250	GRANITE, strongly altered, abundant veins of secondary minerals, rock reduced to granite sand in part, appears to be normal biotite orthoclase granite.	
	127	135	8	7				GRANITE, coarse grained massive biotite orthoclase granite with orthoclase phenocrysts to 1".	
	135	157	22	18				GRANITE, highly altered thick veins of serricite quartz and feldspar, limonite well developed in same vein, some gaethite crystals.	
	157	166	9	9				GRANITE, coarse grained porphyritic generally massive and unaltered.	
	166	174	8	6				BRECCIA, fragments of granite and broken fragments of feldspar and quartz, particularly orthoclase turbulently mixed in a siliceous groundmass, rich in iron in part.	
	174	210	36	33				GRANITE, medium to coarse grained porphyritic in part. Numerous joints and clayey zones and many veins of quartz, chlorite, chlino carbonate and other minerals, red iron colouration.	
	210	250	40	37				GRANITE, medium and coarse grained, porphyritic, several finer biotite rich bands.	
								END OF HOLE	

DDH 317

28 - 98 (29.9 m) UV

Extremely broken ground breccia at 166' (50.6 m) - 174' (53.0 m) (in log)

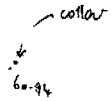
DDH 317

Scale 1:500

Plan View

total depth : 250' 76.2 m

Surveyed to : 200' 60.96 m



DDH 317 Surveyed 1/5/70
casing 170' T.D. 230'
Rods stuck at 200'

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	4	5	6	7	8	9	10	11	12
Depth	Course Length	Drift Angle	Cosine Sine	Contangent Tangent	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine Sine	Contangent Tangent	Def
100'	100	1°45'	9995 ·0305	·0306	99.95	99.95	3.05	cased			3.05.
200'	100'	1°.	9998 ·0175	·0175.	99.98	199.93.	1.75.	230 S 50W	6428 7660.	8391	4.80.

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13		14		15		16	
Co-ordinate Difference				Rectangular Difference			
N	S	E	W	N	S	E	W
—	—	—	—	—	—	—	—
	1.12.		1.34	E	1.12		1.34.

W E N S. D.D.H. 317

2310 AT 1

N

W E

S

DIAMOND DRILL HOLE NO. 316

LOCATION:	No. 3 Orebody
CO-ORDINATES:	100,400.34E 109,995.27N
R.L.:	380.71 Feet 116.0 + 3.3 = 119.3
DATE COMMENCED:	12th May, 1970.
DATE COMPLETED:	3rd June, 1970.
FINAL DEPTH:	815 Feet 248.4
DATE SURVEYED:	-
LOGGED BY:	P. Le Messurier.

294-71

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRILL HOLE

DRILL HOLE No. 316

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
	0	76	76	0			No Core	No Core, surface soil, sand and clay and highly weathered bedrock.	
	76	86	10	4				BIOTITE/MUSCOVITE HORNFELS, thinly bedded, very soft and weathered.	
	86	181.5	94.5	93			A META VOLCANICS 86 - 181.5 26.2 55.3	A META VOLCANICS, mid-grey green rock, of chlorite tremolite, sericite, quartz composition, very variable in texture and mineralogy throughout. Chlorite content varies from 80% to 20% with some in groundmass and remainder as veinlets and irregular blebs and lenticles. Very poorly defined-laminar structure in part, irregular lighter felsic patches give apparent breccia texture.	
	181.5	193	11.5	11			BIOTITE HORNFELS 181.5 - 193 58.8	BIOTITE HORNFELS, fine grained siliceous rock with with well defined bands and blebs of brown biotite, much biotite in matrix in part.	
	193	199.7	6.7	6.5			BIOTITE/PYROXENE HORNFELS 193 - 199.7 60.9	BIOTITE/PYROXENE HORNFELS, well banded, fine grained hornfels with well developed pyroxene and biotite bands. 6" granitic band.	
	199.7	203	3.3	3			GRANITE 199.7 - 203 61.9	GRANITE, medium grained, siliceous, aplitic in part, abundant biotite near upper contact.	
	203	255.5	52.5	50			BIOTITE HORNFELS 203 - 276 84.1	BIOTITE HORNFELS, very fine grained siliceous massive dark brown to black rock with abundant very fine biotite, granite band 213.5 to 214.2, 216 to 217, and 218.5 to 221.5. Granite in bands coarse grained aplitic in part, epidotised near veinlets.	
	255.5	259	3.5					GARNET HORNFELS, very altered and clayey in part, spongy texture, much clay and chlorite on fractures, minor scheelite.	
	259	276	27	27				BIOTITE HORNFELS, fine grained dark brown rock, less uniform in mineralogy and grainsize than previous portion of unit. Minor banding of more siliceous and pyroxene rich bands.	

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRILL

DRILL HOLE No. 316

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
	721 2197	730	9	9			GANITE 721-815	GRANITE, very mixed texture numerous aplitic type patches and veins.	
	730	815	85	83				GRANITE, medium to coarse grained porphyritic orthoclase, some aplitic bands, a few fine mafic bands but generally massive and of consistent texture and mineralogy.	

SEQUOKO LIMITED, KING ISLAND. DIAMOND DRILL [illegible] DRILL HOLE No. 316

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
	276	308	32	31			BIOTITE/PYROXENE HORNFELS 276 - 308 93.9	BIOTITE/PYROXENE HORNFELS, well banded with percentage of pyroxene increasing towards base, minor garnet rich bands with fine disseminated scheelite, banding less regular and more frequent near base.	
	308	314	6	6			B META VOLCANICS 308 - 314 95.7	B META VOLCANICS, massive medium grained biotite pyroxene, feldspar rock with strong remnant volcanic texture.	
	314	316.5	2.5	2.5			GRANITE	GRANITE, medium grained, orthoclase granite, relatively high percentage of biotite, some chlorite.	
	316.5	388	71.5	71			B META VOLCANICS	B META VOLCANICS, medium grained massive and uniform rock type both in mineralogy and texture. Composition biotite, pyroxene, feldspar, with chlorite, tremolite and serricite. Texture typical doleritic with many feldspars showing errosion and resorption. A few thin granitic veinlets and some calcite veinlets.	
	388	399	11	11			GRANITE 388 - 399 118.3 121.6	GRANITE, medium grained orthoclase granite porphyritic in part, numerous zones of increased biotite content. Very coarse grained pegmatite for top 1 foot.	
	399	401	2	2				B META VOLCANICS, as major unit a-bove	
	401	402	1	1			GRANITE	GRANITE, biotite rich.	
	402	406	4	4	[illegible]	[illegible]		B META VOLCANICS, as for previous unit of this rock type, feldspar spotting very prominent at top decreasing towards base.	
A2793	406	408	2	2	0.11	0.012			
A2794	408	410	2	2	0.08	0.016			
A2795	410 [illegible] 250	412	2	2	0.25	0.016	PYROXENE HORNFELS	PYROXENE HORNFELS, thinly banded with some irregular bands of garnet hornfels, minor scheelite.	
A2796	412	414 126.2	2	2	0.88	0.037			
A2797	414	416	2	2	0.03	(0.01	LIMESTONE	LIMESTONE, recrystallised and altered in part, very minor scheelite with some garnet alteration.	
A2798	416	417.5	1.5	1.5	0.04	(0.01			
A2799	417.5	420	2.5	2.5	0.31	(0.01	SKARN	SKARN, fine to medium grained, very pyroxene rich in part, some coarse calcite garnet patches, disseminated scheelite throughout.	
A2800	420	421	1	1	0.29	(0.01			

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRILL HOLE

DRILL HOLE No. 316

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
A2826	421	424	3	3	0.05	(0.01		LIMESTONE, banded recrystallised in part.	
A2827	424	426.7	2.7	2.7	0.44	(0.01		SKARN & LIMESTONE, with disseminated scheelite in garnet rich zones.	
A2828	426.7	430	3.3	3.3	0.04	(0.01		LIMESTONE, banded.	
A2829	430	432.7 (131.9)	2.7	2.7	0.54	0.016		PYROXENE GARNET SKARN, fine grained with some remnant bedding evident, coarse disseminated scheelite.	
A2830	432.7	436.7	4	4	0.05	(0.01	LIMESTONE 432.7 - 470 (143.2)	LIMESTONE, fine grained recrystallised in part, bands of pyroxene and garnet alteration with fine disseminated scheelite. Alteration bands irregular and discontinuous and grade laterally to limestone.	
	436.7	457	20.3	20.0					
A2831	457	459	2	2	0.20	(0.01			
A2832	459	461	2	2	0.10	(0.01			
A2833	461	465	4	4	0.01	(0.01			
A2834	465	468	3	3	0.03	(0.01			
A2835	468	470	2	2	0.16	(0.01			
A2836	470	472	2	2	0.07	0.012	BIOTITE HORNFELS 470 - 540 (164.6)	BIOTITE HORNFELS, fine grained dark grey brown rock, many irregular lighter coloured, pyroxene rich bands and swirls. These generally more prominent near top where blotchy texture common. A few fine quartz and calcite veinlets often with pyrite. Pyrite on chloritic joint surfaces.	
	472	525	53	52					
	525	536	11	10.5				BIOTITE HORNFELS, a number of irregular lighter coloured pyroxene rich blebs with pyrite and in part garnet.	
A2837	536	540	4	0				BIOTITE HORNFELS, extremely badly broken and highly altered abundant clay.	
A2838	540	543	3	1	0.07	(0.01	SKARN 540-592.5 (180.6)	SKARN, garnet rich, fine and medium grained intensely altered with rock now very clayey and having open porous texture, in some part consists entirely of garnets inbedded in iron stained clay, more solid portions highly fractured, irregular disseminations of scheelite.	
A2839	543	545	2	1.8	0.08	(0.01			
A2840	545	547	2	1.8	0.10	(0.01			
A2841	5547	549	2	2	0.11	(0.01			
A2842	549	551	2	1.5	0.10	(0.01			
A2843	551	553	2	1.5	0.10	0.010			
A2844	553	555	2	1.5	0.11	0.019			
A2845	555	557	2	1.5	0.12	0.013			
A2846	557	559	2	1.5	0.15	0.016			

GEOPERO LIMITED, KING ISLAND. DIAMOND DRILL ... DRILL HOLE No. 316

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	LITH	GEOLOGICAL DESCRIPTION	FRACTURING
A2847	559	561	2	1.8	0.16	0.012		SKARN, garnet rich as above, very blotchy	
A2848	561	563	2	1.9	0.78	(0.01		with some pyroxene bands, many highly altered	
A2849	563	565	2	2	0.13	(0.01		and clayey bands but generally more massive	
A2850	565	567	2	2	0.18	(0.01		than above, unit becomes generally finer	
A2851	567	569	2	1.8	0.24	(0.01		grained and more pyroxene rich towards base.	
A2852	569	571	2	1.8	0.18	0.015			
A2853	571	573	2	1.9	0.39	(0.01			
A2854	573	575	2	1.9	0.38	(0.01			
A2855	575	577	2	2	0.14	(0.01			
A2856	577	579	2	2	0.16	(0.01			
A2857	579	581	2	2	0.34	(0.01			
A2858	581	583	2	2	0.32	(0.01			
A2859	583	585	2	2	0.37	(0.01			
A2860	585	587	2	2	0.17	(0.01			
A2861	587	589	2	2	0.12	(0.01			
A2862	589	591	2	2	0.11	(0.01			
A2863	591	592.5	1.5	1.5	0.07	(0.01			
A2864	592.5	594	1.5	1.5	0.06	(0.01	BIOTITE/PYROXENE HORNFELS 592.5 - 614 1871	BIOTITE/PYROXENE HORNFELS, very mixed mineralogy	
	594	614	20	18				banding not distinct, very irregular blebs	
								and [illegible] with pyroxene, garnet and	
								calcite, unit grades to true Pgh in part.	
	614	634	20	12				Clayey, highly weathered and altered zone,	
								majority of rock type pyroxene hornfels,	
								some fragments of biotite and calcite hornfels.	
	634	680	44	40			BANDED HORNFELS 634 - 680 2072	BANDED HORNFELS, interbedded calcite, biotite	
								and pyroxene hornfels with minor garnet hornfels.	
	680	688.5	8.5	8.5			BIOTITE/PYROXENE HORNFELS 680 - 721 2198	BIOTITE/PYROXENE HORNFELS, thinly bedded. Granite 683.5 - 684.5.	
	688.5	691.5	3	3			GRANITE	GRANITE, fine grained biotite feldspar rock.	
	691.5	705.5	14	14				BIOTITE/PYROXENE HORNFELS, thinly bedded fine grained very minor calcite and garnet rich bands.	
	705.5 (215.0)	713.5 (217.5)	8	8			GRANITE	GRANITE, medium grained, biotite rich in part, some porphyritic orthoclase. 1 foot band of hornfels 711' - 712'.	
	713.5	721 (219.8)	7.5	7.5				BIOTITE/PYROXENE HORNFELS, fine grained poorly banded.	

DIAMOND DRILL HOLE ASSAY SHEET

HOLE No. 316

LOGGED BY P. Le Messurier

Sample No.	FOOTAGES From	To	Length	ASSAY WO_3	Mo	L X A	REMARKS
A2793	406 (123.7)	408 (124.4)	2 } .10	0.11	0.012		
A2794	408	410 (125)	2	0.08	0.016		Mo: 0.014
A2795	(124.9) 410	412 (125.6)	2 } .56	0.25	0.016	0.50	
A2796	412	414 (126.2)	2	0.88	0.037	1.76	
A2797	414	416 (126.8)	2 } .03	0.03	(0.01	0.06	B Lens -
A2798	416	417.5 (127.3)	1.5	0.04	(0.01	0.06	22.7 Feet at
A2799	417.5	420 (128)	2.5 } .30	0.31	(0.01	0.775	0.28% WO_3
A2800	420	421 (128.3)	1	0.29	(0.01	0.29	
A2826	421	424 (129.2)	3	0.05	(0.01	0.15	
A2827	424	426.7 (130.1)	2.7	0.44	(0.01	1.188	
A2828	426.7	430 (131.1)	3.3	0.04	(0.01	0.142	
A2829	430	432.7 (131.9)	2.7	0.54	0.016	1.458	
A2830	432.7	436.7 (133.1)	2	0.051	(0.01		
A2831	457 (139.3)	459 (139.9)	2 } .15	0.20	(0.01		
A2832	459	461 (140.5)	2	0.10	(0.01		
A2833	461	465 (141.7)	4	0.01	(0.01		
A2834	465	468 (142.6)	3	0.03	(0.01		
A2835	468	470 (143.3)	2 } .12	0.16	(0.01		
A2836	470	472 (143.9)	2	0.07	0.012		
A2837	536 (163.4)	540 (164.6)	4	0.09	0.023		
A2838	540	543 (165.5)	3	0.07	(0.01		
A2839	543	545 (166.1)	2 } .09	0.08	(0.01		
A2840	545	547 (166.7)	2	0.10	(0.01		
A2841	547	549 (167.3)	2 } .10	0.11	(0.01		
A2842	549	551 (167.9)	2	0.10	(0.01		
A2843	551	553 (168.6)	2 } .10	0.10	0.01		
A2844	553	555 (169.2)	2	0.11	0.019		
A2845	555	557 (169.8)	2 } .14	0.12	0.013		
A2846	557	559 (170.4)	2	0.15	0.06		
A2847	559	561 (171)	2 } .47	0.16	0.012		
A2848	561	563 (171.6)	2	0.78	(0.01		
A2849	563	565 (172.2)	2 } .15	0.13	(0.01		
A2850	565	567 (172.8)	2	0.18	(0.01		
A2851	567	569 (173.4)	2 } .21	0.24	(0.01		
A2852	569	571 (174)	2	0.18	0.015		
A2853	(174.0) 571	573 (174.7)	2 } .39	0.39	(0.01	0.78	
A2854	573	575 (175.3)	2	0.38	(0.01	0.76	
A2855	575	577 (175.9)	2	0.14	(0.01	0.28	

DIAMOND DRILL HOLE ASSAY SHEET

HOLE No. 316

LOGGED BY P. Le Messurier

Sample No.	FOOTAGES From	To	Length	ASSAY WO_3	Mo	L X A	REMARKS
A2856	577	579 (176.5)	2 } .15	0.16	(0.01	0.32	~~B Lens~~ -
A2857	579	581 (177.1)	2 } .33	0.34	(0.01	0.68	~~22.7 Feet~~
A2858	581	583 (177.7)	2 }	0.32	(0.01	0.64	at 0.28% WO_3
A2859	583	585 (178.3)	2 } .27	0.37	(0.01	0.74	LENS: 14' AT 0.31% WO_3
A2860	585	587 (178.9)	2 }	0.17	(0.01		
A2861	587	589 (179.5)	2 } .11	0.12	(0.01		
A2862	589	591 (180.1)	2 }	0.11	(0.01		
A2863	591	592.5 (180.5)	1.5 } .06	0.07	(0.01		
A2864	592.5	594 (181.1)	1.5 }	0.06	(0.01		

DDH 316

Possible fault 208' (63.4 m) - 213 (64.9 m) - slightly brecciated with carbonate

Fault 254' (77.4 m) breccia - recemented with carbonate. bh-gh contact 3.5 of gh only.

Fauly at 259' (78.9 m) (see on log on core lost - gh - bh contact - some breccia noted, recmented by $CaCO_3$

Major fracture 270' (82.3 m) major breccia recemented by $CaCO_3$

Fault 473' (144.2 m) clinohumite

Major fracture 529 (161.2 m) - 531' (161.8 m) long bh in core

Fault 540.5' Clinohumite + breccia bh/gh contact. (164,7 m)

One is very rubbly and securely leached

L/W 540.5' (164.7 m) - 558' (170.1 m)

breccia @ 540 Fault in puggy matric

One rubble, 568' (173.1 m) - 590' (179.8 m)

Many thick chlorite joints with slickenslides.

Ground incompetent 615' (187.5 m)

Podded pgh - handed

Fault @ 613' (189.8 m) breccia in puggy matric may be gh?

Ground incompentent and rubby L/W 615' (187.5 m) - 631' (192.3 m)

541' - 593

164.9 - 180.75

D.D.H. N°. 316.
CASING — 88'
DEPTH OF HOLE —
DEPTH OF SURVEY — 580'
DATE SURVEYED 3/6/70

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

1	2	3	4	5	6	7	8	9	10	11	12	13		14		15		16	
Depth	Course Length	Drift Angle	Mean Drift angle	Accumulated Depth	Total Horizontal Depth	Course Displacement	Drift Direction	Mean Drift Direction	Deflection			Co-ordinate Difference				Rectangular Difference			
												N	S	E	W	N	S	E	W
20	20	0° 45'	0.9998 0.0131	0 45	19.998	19.998	0.2620	N71E			0.2620								
		0° 45'						S 66E											
40	20	1 15	0.9998 0.0196	1 7½	19.996	39.994	0.3920	N9W			0.6542								
		1 0						N2E											
60	20	1 15	0.9998 0.0196	1 7½	19.996	59.990	0.3920	N45E			1.046								
		1 0						N45E											
80	20	1 15	0.9998 0.0218	1 15	19.996	79.986	0.436	N55E			1.482								
		1 15						N55E											
100	20	1 0	0.9998 0.0218	1 15	19.996	99.982 30.47	0.436	~~DET~~ N41E	0.7009 0.7133	045 N45½E	1.918	1.3443		1.3681		*1.3443 -41		1.3681 -42	
		1 30						N50E											
120	20	1 0	0.9998 0.0196	1 7½	19.996	119.978	0.3920	N28E	0.8434 0.5373	N32½E	2.310	0.3306 ~~1.9482~~		0.2106 ~~1.2412~~		1.6749		1.5787	
		1 15						N37E											
140	20	1 0	0.9998 0.0196	1 7½	19.996	139.974	0.3920	N36E	0.8572 0.5150	N31E	2.702	0.3360 ~~2.3161~~		0.2019 ~~1.3975~~		2.0109		1.7806	
		1 15						N26E											
160	20	1 0	0.9998 0.0175	1 0	19.996	159.970	0.3500	N10E	0.9135 0.4067	N24E	3.052	0.3197 ~~2.2880~~		0.1423 ~~1.2412~~		2.3306		1.9229	
		1 0						N38E											
180	20	1 0	0.9998 0.0175	1 0	19.996	179.966	0.3500	N10W	0.9976 0.0698	NHE	3.402	0.3492 ~~2.3738~~		0.0244 0.2	~~0.0244~~ ~~0.2374~~	2.6798		1.9473	
		1 0						N18E											
200	20	1 15	0.9998 0.0196	1 7½	19.996	199.962 60.95	0.3920	N38W	0.8746 0.4848	331 N29W	3.794	0.3428			0.1900	3.0226 -92		1.7573 -54	
		1 0						N20W											
220	20	1 30	0.9997 0.0240	1 22½	19.994	219.956	0.4800	N21W	0.8829 0.4695	N28W	4.274	0.4238			0.2254	3.4464		1.5319	
		1 15						N35W											
240	20	2 0	0.9994 0.0327	1 52½	19.988	239.944	0.654	N17W	0.9563 0.2924	N17W	4.928	0.6254			0.1912	4.0718		1.3407	
		1 45						N17W											
260	20	2 30	0.9992 0.0393	2 15	19.984	259.928	0.786	N23W	0.9304 0.3665	N21½W	5.714	0.7813			0.2881	4.8031		1.0526	
		2 0						N20W											
280	20	3 0	0.9988 0.0480	2 45	19.976	279.904	0.960	N30W	0.8829 0.4695	N28W	6.674	0.8476			0.4507	5.6507		0.6019	
		2 30						N26W											
300	20	3 0	0.9986 0.0523	3 0	19.972	299.876 91.40	1.046	N29W	0.8617 0.5075	330 N30½W	7.720	0.9013			0.5308	6.5520 2.0		0.0711	
		3 0						N32W											

D.D.H. N°. 316.

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	4	5	6	7	8	9	10	11	12
Depth	Course Length	Drift Angle	Cosine Bind of mean Drift angle	Mean Drift angle	Vertical Depth	True Vertical Depth	Course Variation	Drift Direction	Cosine Bind	Mean Drift Direction	Deflection
320	20	3° 15'	0·9985 0·0545	3° 7½'	19·970	319·846	1·0900	N29W	0·8704 0·4924	N29½W	8·810
		3 0						N30W			
340	20	3 15	0·9984 0·0567	3 15	19·968	339·814	1·1340	N26W	0·8949 0·4462	N26½W	9·944
		3 15						N27W			
360	20	3 15	0·9984 0·0567	3 15	19·968	359·782	1·134	N28W	0·8704 0·4924	N29½W	11·078
		3 15						N31W			
380	20	3 30	0·9982 0·0588	3 22½	19·964	379·746	1·176	N28W	0·8746 0·4848	N29W	12·254
		3 15						N30W			
400	20	3 30	0·9982 0·0588	3 22½	19·964	399·710 (121·83)	1·176	N30W	0·8660 0·5000	330 N30W	13·430
		3 15						N30W			
420	20	3 30	0·9981 0·0610	3 30	19·962	419·672	1·220	N30W	0·8572 0·5150	N31W	14·650
		3 30						N32W			
440	20	3 45	0·9980 0·0632	3 37½	19·960	439·632	1·264	N29W	0·8572 0·5150	N31W	15·914
		3 30						N33W			
460	20	4 0	0·9977 0·0676	3 52½	19·954	459·586	1·352	N30W	0·8660 0·5000	N30W	17·266
		3 45						N30W			
480	20	4 0	0·9976 0·0698	4 0	19·952	479·538	1·396	N30W	0·8526 0·5225	N31½W	18·662
		4 0						N33W			
500	20	4 30	0·9969 0·0785	4 30	19·938	499·476 (152·24)	1·570	N34W	0·8192 0·5736	325 N35W	20·232
		4 30						N36W			
520	20	5 0	0·9962 0·0872	5 0 ~~4 45~~	19·924	519·400	1·744	N39W	0·7660 0·6428	N40W	21·976
		~~5 15~~ 5 0						N41W			
540	20	~~5 15~~ 5 15	0·9960 0·0893	5 7½	19·920	539·320	1·786	N44W	0·7193 0·6947	N44W	23·762
		5 0						N44W			
560	20	5 0	0·9962 0·0872	5 0	19·924	559·244	1·744	N44W	0·7193 0·6947	N44W	25·506
		5 0						N44W			
580	20	5 0	0·9962 0·0872	5 0	19·924	579·168 (176·55)	1·744	N43	0·7314 0·6820	317 N43W	27·250
		5 0						N43			

EASTMAN MULTISHOT DRILL HOLE SURVEY

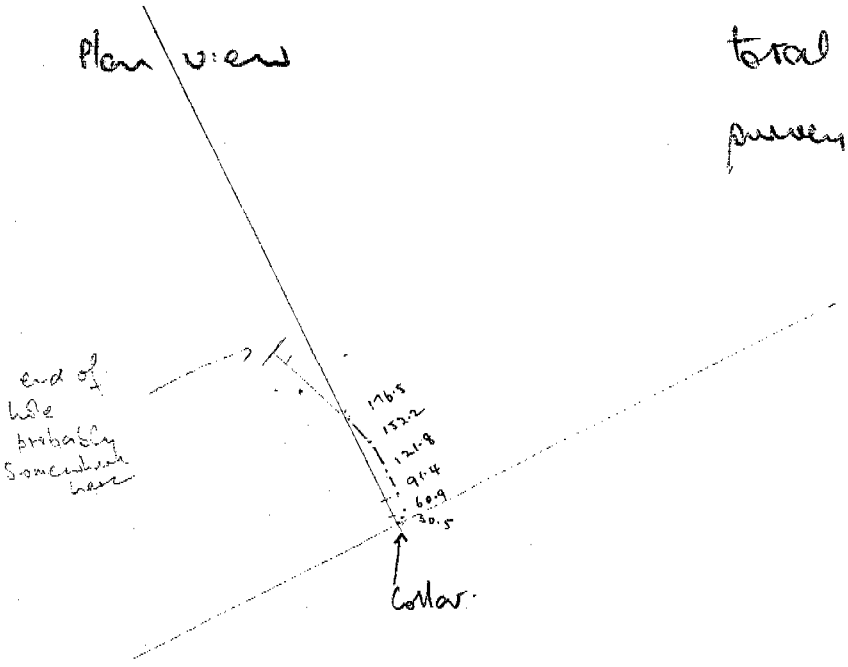
CALCULATION SHEET NO. 2

13	14		15		16
Co-ordinate Difference			Co-ordinate Reference		
	S	W	N	E	
0·9487		0·5367	7·5007		0·4656
1·0148		0·5060	8·5155		0·9716
0·9870		0·5584	9·5025		1·5300
1·0285		0·5701	10·5310		2·1001
1·0184		0·5880	3·52 11·5494		·82 2·6881
1·0458		0·6283	12·5952		3·3164
1·0835		0·6510	13·6787		3·9674
1·1708		0·6760	14·8495		4·6434
1·1902		0·7284 ~~0·7455~~	16·0397		5·3728
1·2861		0·9005	5·28 17·3258		1·91 6·2733
1·3359		1·1210	18·6617		7·3943
1·2847		1·2407	19·9464		8·6350
1·2544		1·2115	21·2008		9·8465
1·2756		1·1894	6·85 22·~~5568~~ 4764		3·36 11·0359

DDH 316

Scale 1:500

Plan view



total depth: 815' 248.4 m

surveyed to: 580' 176.78

D.D.H. 316

W E N S

100'

200'

300'

400'

500'

600'

B

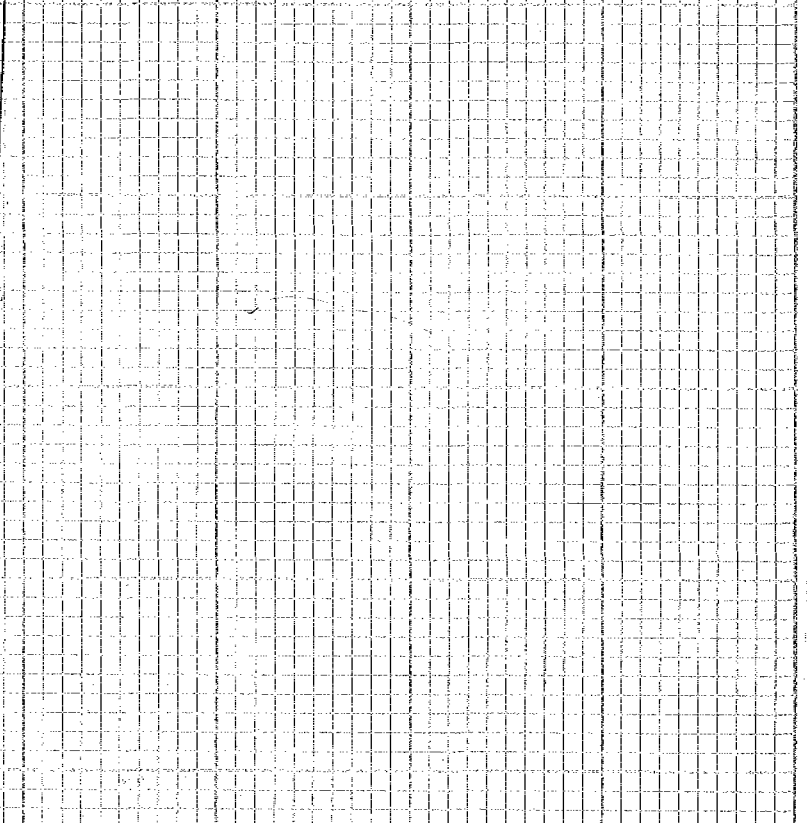
B1

D.D.H. N° 316

DATE SURVEYED :- 3/6/70

TOTAL DEPTH :- 815

SURVEYED TO :- 580'



DIAMOND DRILL HOLE NO. 315

LOCATION:	No. 3 Orebody
CO-ORDINATES:	100,597.05E; 109,600.23N
R.L.:	383.68 Feet (116.9) 3.29 120.2
DATE COMMENCED:	3rd April, 1970
DATE COMPLETED:	20th April, 1970.
FINAL DEPTH:	902 Feet (274.9)
DATE SURVEYED IN:	26th March, 1970.
LOGGED BY:	P. Le Messurier.

325.68

WESTERN CHIEFTAIN, KEMO ISLAND. DIAMOND D. H. NO. 315 DRILL HOLE No. 315

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACT
	0	20	20	0				No Core - surface soil, sand and clay and strongly weathered bedrock.	
	20	50	30	4			METAVOLCANICS 20 - 171 609 52.1	METAVOLCANICS, rubble, very strongly weathered and altered, very clayey in part.	
	50	58	8	4				META VOLCANICS, strongly weathered and broken.	
	58	171	113	109				META VOLCANICS, fine grained mid-grey and green mottled, an essentially felsic rock with abundant chlorite as blebs and veinlets as well as disseminated in groundmass. Percentage of chlorite very variable from section to section and some very poor banding in some sections.	
	171	202	31	29			PYROXENE/BIOTITE HORNFELS 171 - 202 61.6	PYROXENE BIOTITE HORNFELS, irregularly inter-bedded and of variable composition.	
	202	267.5	65.5	65			HORNFELS/VOLCANICS 202 - 267.5 81.5	BIOTITE PYROXENE HORNFELS (very similar to B Meta Volcanics). A fine to med. granular rock of biotite pyroxene feldspar with a batchy texture of feldspars. Irregular lenticles of pyrite and to a lesser extent pyrrhotite. Relative percentages of biotite and pyroxene very variable throughout and basal 10 feet contains little or no biotite.	
	267.5	275	7.5	7.5			BIOTITE HORNFELS 267.5 - 275 7.5	BIOTITE HORNFELS, fine grained banded with a few pyroxene rich bands.	
	275	280	5	5			PYROXENE HORNFELS 275 - 283 8.2	PYROXENE HORNFELS, very fine, banded with a few biotite and garnet bands, sporadic scheelite.	
A1997	280	283	3	3	0.06	0.012			
A1998	283	285	2	2	0.04	(0.01	SKARN 283-308 9.3.9 A_1 Lens Ft. % WO_3	PYROXENE SKARN - variable grainsize from fine to coarse with mineralogy chiefly pyroxene with minor garnet calcite and quartz. Disseminated scheelite throughout.	
A1999	285	287	2	2	0.04	(0.01			
A2000	287	289	2	2	0.08	(0.01			
A2001	289	291	2	2	0.47	0.015			
A2002	291	293	2	2	0.79	0.031			
A2003	293	295	2	2	0.64	0.023			
A2004	295	297	2	2	0.39	0.015			
A2005	297	299	2	2	0.46	0.021			
A2006	299	301	2	2	0.86	0.027			
A2007	301	303	2	2	0.46	0.013			

PEGMEX LIMITED, MING ISLAND. DIAMOND DRILL LOG DRILL HOLE No. 315

SAMPLE No.	DISTANCES FROM	TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	Mo	LITH	GEOLOGICAL DESCRIPTION	FRACTURE
A2008	303	305	2	2	0.58	0.021			
A2009	305	307	2	2	1.10	0.035			
A2010	307	308	1	1	0.77	0.025			
A2011	308	309	1	1	0.26	(0.01	LIMESTONE 308 - 327 99.7	LIMESTONE, recrystallised with some alteration in bands to garnet and biotite. Very sporadic scheelite.	
A2012	309	313	4	4	0.02	(0.01			
A2013	313	317	4	4	0.03	(0.01			
A2014	317	321	4	4	0.03	(0.01			
A2015	321	325	4	4	0.01	(0.01			
A2016	325	327	2	2	(0.01	(0.01			
A2017	327	329	2	2	0.90	0.039	SKARN 327 - 352.5 A_2 Lens 107.4 Ft.	PYROXENE SKARN, variable fine to medium grained skarn in which pyroxene predominates, minor % WO_3 garnet, calcite and quartz. Disseminated scheelite throughout.	
A2018	329	331	2	2	1.10	0.037			
A2019	331	333	2	2	1.00	0.031			
A2020	333	335	2	2	1.18	0.038			
A2021	335	337	2	2	1.37	0.053			
A2022	337	339	2	2	0.16	(0.01			
A2023	339	341	2	2	0.27	0.014			
A2024	341	343	2	2	0.23	(0.01			
A2025	343	345	2	2	0.10	(0.01			
A2026	345	347	2	2	0.30	0.010			
A2027	347	349	2	2	0.13	(0.01			
A2028	349	351	2	2	0.04	(0.01			
A2029	351	352.5	1.5	1.5	0.07	0.015			
A2030	352.5	354	1.5	1.5	0.08	0.025	BIOTITE HORNFELS 352.5 - 412 125.6	BIOTITE HORNFELS, well banded, scattered pyroxene hornfels bands and unit grades to mixed biotite/pyroxene hornfels in part.	Well jointed & broken 3" to 6" piec
A2031	354	356	2	2	0.08	0.026			
	356	412							
	412	484.5	72.5	72			META VOLCANICS 412 - 484.5 147.7	META VOLCANICS - fine to medium granular rock of biotite and pyroxene and feldspar, many feldspar blebs and remnant., volcanic texture, massive and uniform throughout, a few sulphide veins and blebs.	
	484.5	505.5	21	20			BIOTITE PYROXENE HORNFELS 484.5 - 505.5 154.1	BIOTITE PYROXENE HORNFELS, fine grained irregularly interbanded and intermixed well banded unit, a few garnet rich bands and blebs with very minor pyrite and scheelite.	
	505.5	523	17.5	17.5			154.1 - 159.4	GRANITE - generally finer grained with some biotite rich bands - a few aplitic bands and blebs.	

					WO_3	Mo		
A2221	523	525	2	2	0.12	(0.01	SKARN 523-533 162.4	SKARN, generally variable in both grainsize and composition, pyroxene always in excess of garnet, many calcite and quartz veins, scheelite throughout.
A2222	525	257	2	2	4.3	0.056C		
A2223	527	259	2	2	2.6	0.031C		
A2224	529	531	2	2	0.71	0.013		
A2225	531	533	2	2	2.3	0.069C		
A2226	533	535	2	2	0.06	(0.01	LIMESTONE 163.7	LIMESTONE - recrystallised, altered in part, with minor scheelite.
A2227	535	537	2	2	0.03	(0.01		
A2228	537	539	2	2	0.20	(0.01	PYROXENE HORNFELS 537 - 544 165.8	PYROXENE HORNFELS - being rock strongly altered with pyroxene and minor garnet calcite and quartz veins disseminated scheelite.
A2229	539	541	2	2	0.23	(0.01		
A2230	541	543	2	2	0.09	(0.01		
A2231	543	544	1	1	0.10	(0.01		
A2232	544	548	4	4	0.02	(0.01	LIMESTONE 544 - 602.5 183.6	LIMESTONE, irregularly banded and in part altered, well bedded with pelitic material in part, minor scheelite at top and at base in some altered zones.
A2233	548	552	4	4	0.09	(0.01		
	552	602.5	50.5	50.5				
	602.5	691	88.5	85			BIOTITE/PYROXENE HORNFELS 602.5-728 221.9	BIOTITE/PYROXENE HORNFELS - irregularly interbanded fine grained rock of biotite and pyroxene and silica, minor scheelite rich bands and modules occasionally throughout.
	691	724	33	33				BIOTITE/PYROXENE HORNFELS - interbanded and intermixed fine grained rock, sporadic carbonate ovoids with garnet rims, unit shows signs of poorly developed pyroxene garnet hornfels, very altered and clayey towards base. 715 - 728 90% <1" ?
A2234	724	728	4	4	0.07	0.014		
A2235	728	730	2	2	0.06	(0.01	SKARN 728-736 224.3	SKARN, irregular grainsize and mineralogy, garnet generally predominates, strongly altered at top and calcite veinw, disseminated scheelite.
A2236	730	732	2	2	0.81	0.015		
A2237	732	734	2	2	0.04	0.021		
A2238	734	736	2	2	0.77	(0.01		
A2239	736	738	2	2	0.05	(0.01	BANDED HORNFELS 736 - 746 227.4	BANDED HORNFELS - Biotite, Pyroxene and Calcite Hornfels interbedded in irregular units, irregular garnet alteration and replacement and minor scheelite.
A2240	738	740	2	2	0.09	(0.01		
A2241	740	742	2	2	0.07	(0.01		
A2242	742	744	2	2	0.44	0.01		
A2243	744	746	2	2	0.31	(0.01		

GROPEKO LIMITED, KING ISLAND. DIAMOND DRI... DRILL HOLE No. 315

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	LITH	GEOLOGICAL DESCRIPTION	FRACTURI
A2244	746	748	2	2	0.66	0.025	SKARN 746 - 758	SKARN, variable grainsize pyroxene garnet	
A2245	748	750	2	2	0.48	0.01	231.0	skarn, banded in part, irregular very fine hornfels	
A2246	750	752	2	2	0.18	(0.01		bands, calcite veins, disseminated scheelite.	
A2247	752	754	2	2	0.03	(0.01			
A2248	754	756	2	2	0.03	(0.01			
A2249	756	758	2	2	0.13	(0.01			
A2250	758	760	2	2	0.31	(0.01	BANDED HORNFELS	BANDED HORNFELS, biotite, pyroxene, garnet and	
A2251	760	762	2	2	0.88	(0.01	758 - 841	calcite hornfels interbanded in units that vary	
A2252	762	766	4	4	0.07	(0.01	256.3	from ½" to 12", boundaries very irregular and	
	766	774	8	8				relationships variable. Disseminated scheelite	
A2253	774	775	1	1	0.08	(0.01		associated with garnet rich bands.	
	775	798	23	23					
A2254	798	800	2	2	0.20	(0.01			
A2746	800	803	3	3	0.06	(0.01			
A2747	803	805	2	2	0.06	(0.01			
A2748	805	807	2	2	0.05	(0.01			
A2255	807	808.5	1.5	1.5	0.72	0.016			
A2749	808.5	810	1.5	1.5					
	810	824	14	14					
A2750	824	825	2	2	0.03	(0.01			
A2751	826	827.3	1.3	1.3	0.03	(0.01			
A2256	827.3	829	1.7	1.7	0.51	(0.01			
A2257	829	830	1	1	0.24	(0.01			
A2752	830	832	2	2	0.06	(0.01			
A2753	832	834	2	2	0.04	(0.01			
A2754	834	835.5	1.5	1.5	0.06	(0.01			
A2258	835.5	836.5	1	1	0.04	(0.01			
A2259	836.5	838.5	2	2	0.06	0.016			
A2260	838.5	841	2.5	2.5	1.19	0.017			
A2755	841	843	2	2	0.60	0.088		ASSIMILATION ZONE - zone of granitic texture and	
A2756	843	845	2	2	0.05	0.010		granite composition in part, but with pyroxene	
A-756								garnet common. Scheelite and molybdenite	
								disseminated throughtou.	
	845 2515	868	23	23			GRANITE 843 - 902	GRANITE, medium grained, granadiorite, a few	
								feldspar phenocrysts, composition very variable	
								and zones assimilated material common, sporadic	
								scheelite and molybdenite, unit grades to more	
								uniform massive granite towards base.	
	868	902	34	25				GRANITE, medium to coarse grained porphyritic	
								granite with orthoclase phenocrysts to 1". From	
								884' granite very friable and core reduced to	
								sand in part.	

HOLE COLLAPSED, 902 FEET.

DIAMOND DRILL HOLE 315

Logged By P. Le Messurier

SAMPLE	FOOTAGES From	To	Length		ASSAYS WO_3	Mo	L X A	REMARKS
A1997	280 (85.3)	283 (86.2)	3	.05	0.06	0.012	0.18	
A1998	283	285 (86.9)	2		0.04	(0.01	0.08	
A1999	285	287 (87.5)	2	.06	0.04	(0.01	0.08	
A2000	287	289 (88.1)	2		0.08	(0.01	0.16	
A2001 ✓	289	291 (88.7)	2	.63	0.47	0.015	0.94	
A2002 ✓	291	293 (89.3)	2		0.79	0.031	1.58	
A2003 ✓	293	295 (89.9)	2	.52	0.64	0.023	1.28	A/1 Lens
A2004 ✓	295	297 (90.5)	2		0.39	0.015	0.78	20' at
A2005 ✓	297	299 (91.1)	2	.66	0.46	0.021	0.92	
A2006 ✓	299	301 (91.7)	2		0.86	0.027	1.72	0.68% WO_3
A2007 ✓	301	303 (92.3)	2	.52	0.46	0.013	0.92	.63
A2008 ✓	303	305 (93.0)	2		0.58	0.021	1.16	Mo: 0.023
A2009 ✓	305	307 (93.6)	2		1.10	0.035	2.20	
A2010 ✓	307	308 (93.9)	1	.81	0.77	0.025	~~1.54~~ 1.27	
A2011 ✓	308	309 (94.2)	1		0.26	(0.01	~~0.52~~ 0.26	
A2012	309	313 (95.4)	4		0.02	(0.01	0.08	
A2013	313	317 (96.6)	4		0.02	(0.01	0.12	
A2014	317	321 (97.8)	4		0.03	(0.01	0.12	
A2015	321	325 (99.1)	4		0.01	(0101	0.04	
A2016	325	327 (99.7)	2	.45	(0.01	(0.01	(0.04	
A2017 ✓	327	329 (100.3)	2		0.90	0.039	1.80	
A2018 ✓	329	331 (100.9)	2	1.05	1.10	0.037	2.20	A/2 Lens
A2019 ✓	331	333 (101.5)	2		1.00	0.031	2.00	14' at
A2020 ✓	333	335 (102.1)	2	1.27	1.18	0.038	2.36	0.85% WO_3
A2021 ✓	335	337 (102.7)	2		1.37	0.053	2.74	Mo: 0.039
A2022 ✓	337	339 (103.3)	2	.21	0.16	(0.01	0.32	
A2023 ✓	339	341 (103.9)	2		0.27	0.014	0.54	
A2024 ✓	341	343 (104.5)	2	.17	0.23	(0.01	0146	
A2025 ✓	343	345 (105.1)	2		0.10	(0.01	0.70	
A2026 ✓	345	347 (105.8)	2	.22	0.30	0.01	0.60	
A2027	347	349 (106.4)	2		0.13	(0.01	0.26	
A2028	349	351 (107.0)	2	.07	0.04	(0.01	0.08	
A2029	351	352.5 (107.4)	1.5		0.07	0.015	0.105	
A2030	352.5	354 (107.9)	1.5		0.08	0.025	0.12	
A2031	354	356 (108.5)	2		0.08	0.026	0.16	
A2221	523	525 (160.0)	2		0.12	(0.01	0.24	
A2222 ✓	525	527 (160.6)	2	3.45	4.3	0.056	8.6	B Lens
A2223 ✓	527	529 (161.2)	2		2.6	0.031	5.2	8' at
A2224 ✓	529	531 (161.8)	2	1.50	0.71	0.013	1.42	2.47% WO_3
A2225 ✓	531	533 (162.4)	2		2.3	0.069	4.6	Mo: 0.042
A2226	533	535 (163.1)	2	.05	0.06	(0.01	0.12	
A2227	535	537 (163.7)	2		0.03	(0.01	0.06	

DIAMOND DRILL HOLE 315

Logged By P. Le Messurier

SAMPLE	FOOTAGES From	To	Length	ASSAYS WO_3	Mo	L X A	REMARKS
A2228	537 163.7	539	2	0.20	(0.01	0.40	
A2229	539 164.3	541	2 .21	0.23	(0.01	0.46	
A2230	541 164.9	543	2 .09	0.09	(0.01	0.18	
A2231	543 165.5	544	1	0.10	(0.01	0.10	
A2232	544 165.8	548	4	0.02	(0.01	0.08	
A2233	548 167.0	552	4	0.09	(0.01	0.36	
A2234	724 220.7	728	4 .07	0.07	0.014	0.28	
A2235	728 221.9	730	2	0.06	(0.01	0.12	
A2236 ✓	730 222.5	732	2	0.81	0.015	1.62	C1 Lens 6' at 0.54% WO_3
A2237 ✓	732 223.1	734	2	0.04	0.021	0.08	
A2238 ✓	734 223.7	736	2	0.77	(0.01	1.54	
A2239 ✓	736 224.5	738	2	0.05	(0.01	0.10	
A2240 ✓	738 224.9	740	2 .07	0.09	(0.01	0.18	
A2241 ✓	740 225.5	742	2	0.07	(0.01	0.14	
A2242 ✓	742 226.2	744	2	0.44	(0.01	0.88	C2 Lens 8' at 0.47% WO_3
A2243 ✓	744 226.8	746	2 .38	0.31	(0.01	0.62	
A2244 ✓	746 227.4	748	2	0.66	(0.01	1.32	
A2245 ✓	748 228.0	750	2 .57	0.48	0.01	0.96	
A2246 ✓	750 228.6	752	2	0.18	(0.01	0.36	
A2247 ✓	752 229.2	754	2 .10	0.03	(0.01	0.06	
A2248 ✓	754 229.8	756	2	0.03	(0.01	0.06	
A2249 ✓	756 230.4	758 231.0	2 .08	0.13	(0.01	0.26	
A2250 ✓	~~958~~ 230.5	760	2	0.31	(0.01	0.62	
A2251 ✓	760 231.6	762	2 .60	0.88	(0.01		
A2252	762 232.2	766	4	0.17	(0.01		
A2253	774 235.9	775	1	0.08			
A2254	798 243.2	800	2	0.20	(0.01		
A2746	800 243.8	803	3	0.06	(0.01		
A2747	803 244.7	805	2 .06	0.06	(0.01		
A2748	805 245.4	807	2	0.05	(0.01		
A2255 ✓	807 246.0	808.5	1.5 .44	0.72	(0.01		
A2749	808.5 246.4	810	1.5	0.16	(0.01		
A2750	824 251.1	825	1 .03	0.03	(0.01		
A2751	825 251.5	827.3	1.3	0.03	(0.01		
A2256 ✓	827.3 252.2	829	1.7	0.51	(0.01		
A2257 ✓	829 252.7	830	1	0.24	(0.01		
A2752	830 253.0	832	2 .05	0.06	(0.01		
A2753	832 253.6	834	2	0.04	(0.01		

DIAMOND DRILL HOLE 315

Logged By P. Le Messurier

SAMPLE	FOOTAGES From	To	Length	ASSAYS WO_3	Mo	L X A	REMARKS
A2754	834 254.4	835.5	1.5	0.06	(0.01		
A2258	835.5 254.6	836.5	1 .07	0.09	(0.01		
A2759	836.5 255.0	838.5	2	0.08	(0.01		
A2260 ✓	838.5 255.6	841	2.5	1.19	0.11		
A2755 ✓	841 256.3	843	2	0.60	0.088		
A2756	843 256.9	845 257.5	2	0.05	(0.01		

UV 0 - 170' (51.8 m)

pgh 170' (51.8 m) - 202' (61.6 m)

LV

Major fracture 71' (21.6 m)

Major fracture 821' (25.0 m)

Possible fault 375' (114.3 m)

Fault 394' (120.1 m)

Possible fault (154 m) as dyke BH-AP-gph

Incompetent ground 537' (163.7 m)

Fault 688' (209.7 m)

Fault 719' (219.2 m)

Major fracture 731' (222.8 m)

Major fracture 767' (233.8 m)

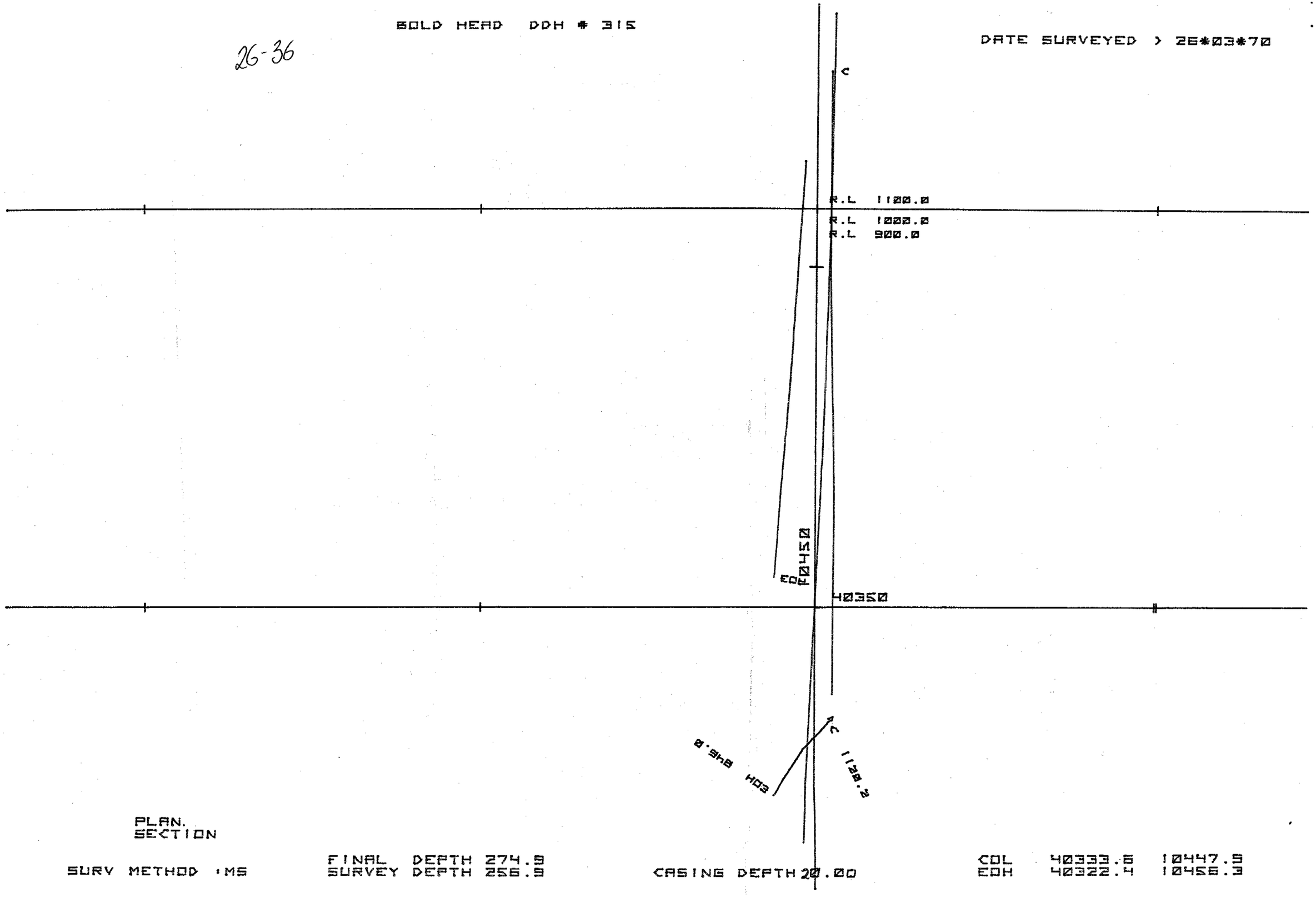
Incompetant ground 777' (236.8 m)

Incompetent ground 800' (243.8 m)

BOLD HEAD DDH # 315

26-36

DATE SURVEYED > 26*03*70



PLAN.
SECTION

SURV METHOD : MS

FINAL DEPTH 274.9
SURVEY DEPTH 256.9

CASING DEPTH 20.00

COL 40333.6 10447.9
EOH 40322.4 10456.3

FOLD

HEWLETT-PACKARD
9280-0180
FOR USE ON HEWLETT-PACKARD RECORDERS

BOLD HEAD MINE

.251
.270
.526/7
.525/10
.525/8
.265
.277
.282
.525/3
.525/5
.575/6
.313*
.575/7
.314
.231
.575/2
.525/4
10525
.269
.285
40300

1 PLAN R.L → 915

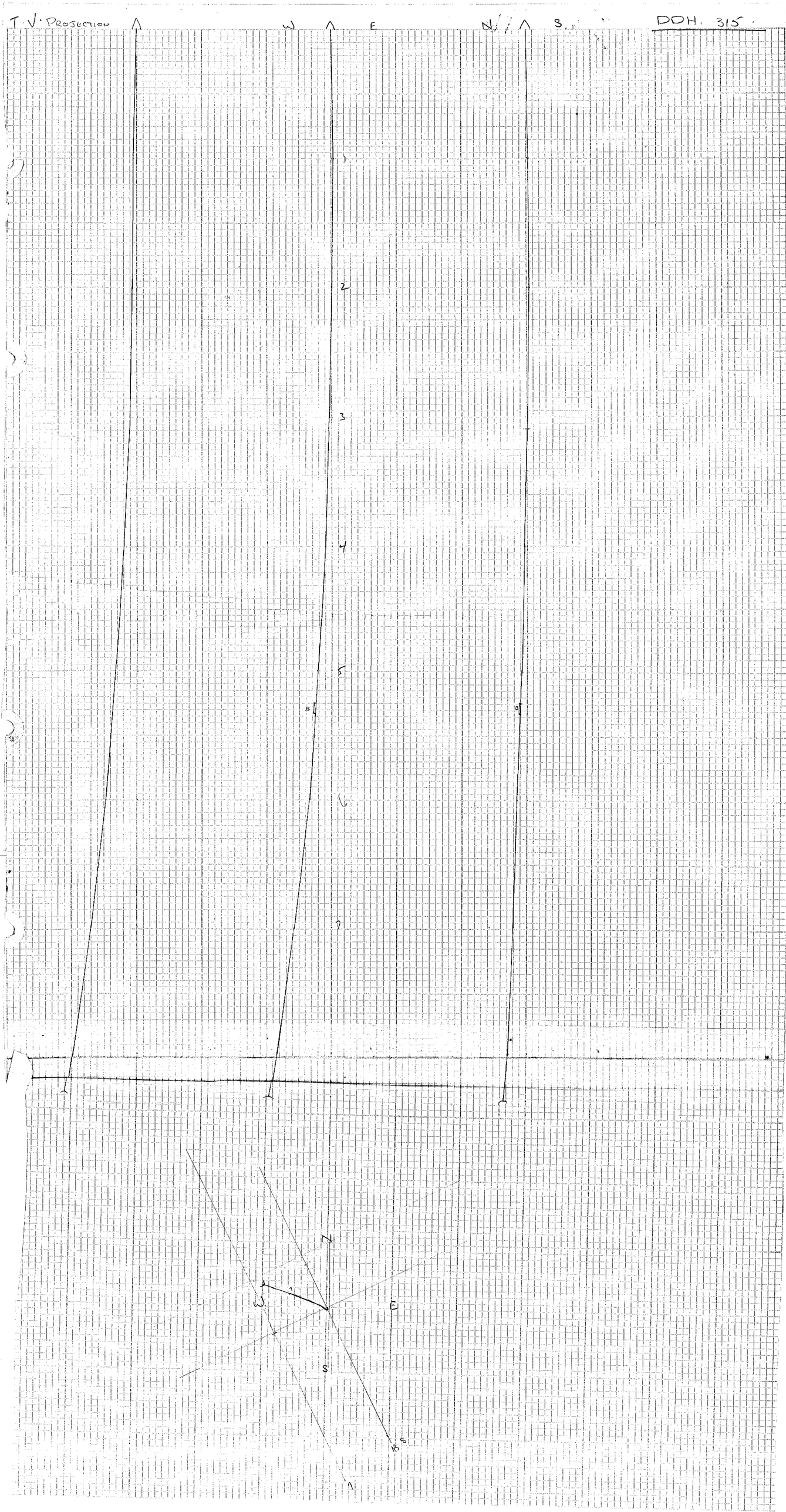
FOLD

(2)

T.V. PROJECTION

W E N S

DDH. 315.



Hole 315
Casing 591
T.D. ~~902~~ 902

Date Surveyed 20/4/70.

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1 Depth	2 Course Length	3 Drift & Angle	4 Cosine Sine	5 Cosine Tangent	6 Vertical Depth	7 Total Vertical Depth	8 Course Departure	9 Drift Direction	10 Cosine Sine	11 Cosine Tangent	12 Departure
100	100	1°15′	·9998 ·0218	·0218	99·98	30·49 99·98	2·18	127 S 53 E	·6018 ·7986	·7536	2·18
200	100	1°.	·9998 ·0175	·0175	99·98	60·95 199·96	1·75	257 S 77 W	·2250 ·9744	·2309	3·93
300	100	1°.	·9998 ·0175	·0175	99·98	91·42 299·94	1·75	320 N 40 W	·7660 ·6428	·8391	5·68
400	100	2° 45′	·9988 ·0480	·0480	99·88	121·90 399·82	4·80	292 N 68 W	·3746 ·9272	·4040	10·48
500	100	3° 45′	·9979 ·0654	·0655	99·79	152·3 499·61	6·54	297 N 63 W	·4540 ·8910	·5095	17·02
600	100	4°.	·9976 ·0698	·0699	99·76	182·69 599·37	6·98	295 N 65 W	·4226 ·9063	·4663	24·00
700	100	6° 45′	·9931 ·1175	·1184	99·31	212·96 698·68	11·75	285 N 75 W	·2588 ·9659	·2679	35·75
800	100	8°	·9903 ·1392	·1405	99·03	243·12 797·71	13·92	287 N 73 W	·2924 ·9563	·3057	49·67
840 902	40	8° 45′ 8°45′	·9884 ·1521	·1539	39·94 ~~98·84~~	255·32 837·65	6·08	289 N 73 W 284	·2924 ·9563	·3057	55·75
800	40	8°	·9903 ·1392	·1405	39·61.	747·64	5·5680	N 73 W	·2924 ·9563	·3057	
700	100	6° 45′	·9931 ·1175	·1184	99·31	648·33	11·75	N 73 W	·2924 ·9563	·3057	
600	100	4° 15′	·9973 ·0741	·0743	99·73	598·60	7·41	N 60 W	·5000 ·8660	·5774	
500	100	3° 45′	·9979 ·0654	·0655	99·79	498·81	6·54	N 65 W	·4226 ·9063	·4663	
400	100	2° 45′	·9988 ·0480	·0480	99·88	398·93	4·80	N 65 W.	·4226 ·9063	·4663	
300	100	1° 30′	·9997 ·0262	·0262	99·97	299·14	2·62	N 77° W.	·2250 ·9744	·2309	
200	100	0° 15′	1·0000 ·0044	·0044	100	199·14	0·44	—			
100	100	1° 45′	·9995 ·0305	·0131	99·95.	99·19	3·05	S 30 E.	·8660 ~~·5000~~	·5774	

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13 Co-ordinate Difference N	13 Co-ordinate Difference S	13 Co-ordinate Difference E	13 Co-ordinate Difference W	14 Rectangular Difference N	14 Rectangular Difference S	14 Rectangular Difference E	14 Rectangular Difference W
	1·312	1·741			1·312 ·4	1·741 ·55	
	0·394		1·705		1·706 ·52	0·036 0	
1·341			1·125 ·07		0·365 ·11		1·089 ·3
1·798			4·451	1·433 ·44			5·540 1·69
2·928			5·827 ~~1·336~~	4·361 1·33			11·364 3·46
2·950			6·326	7·311 2·22			17·693 5·39
3·041			11·349	10·352 3·15			29·042 9·0
4·040			13·310	14·422 4·39			42·352 12·91
1·778			5·814	16·200 4·94			48·566 14·80

BHMC

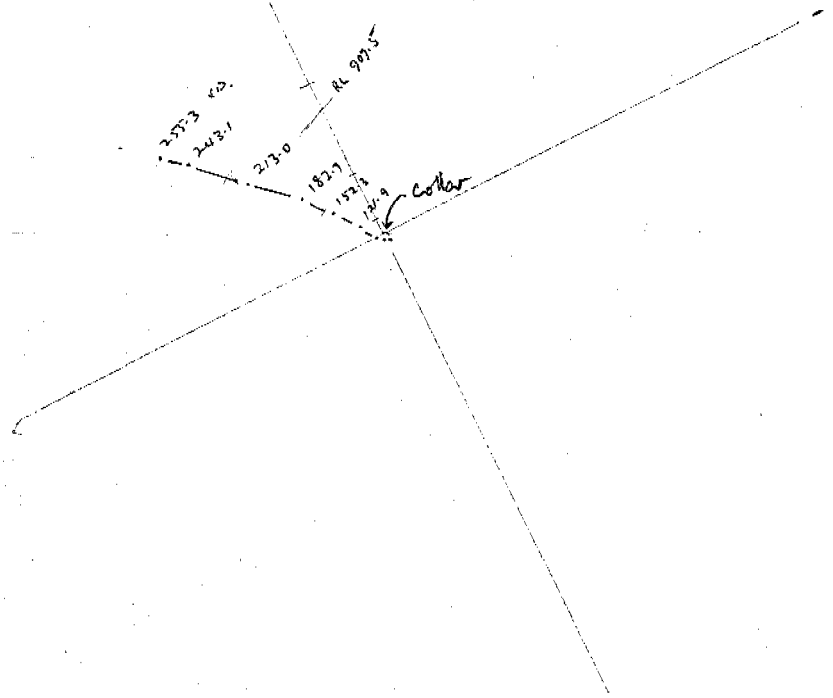
DDH 315

Scale 1:500

Plan view

total depth : 902' 274.93 m

Surveyed to : 840' 256.03 m



DIAMOND DRILL HOLE NO. 314

LOCATION:	No. 3 Orebody
CO-ORDINATES:	100,748.83E:109,960.27N
R.L.:	402.87 Feet (122.8 m)
DATE COMMENCED:	4th May, 1970. (126.1 m talkbrook)
DATE COMPLETED:	18th June, 1970.
FINAL DEPTH:	977 Feet (297.8 m.)
DATE SURVEYED:	
LOGGED BY:	P. Le Messurier

351.87

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH RECOVD	ASSAY WO_3	ASSAY Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
	0	22	22	0			No Core	Surface soil sand and clay, with highly weathered bedrock.	
	22	51	28	14			QUARTZITE 22 - 496.5 69 157.3	QUARTZITE, fine grained very micaceous in part, strongly weathered, much limonite staining.	
	51	290.5						QUARTZITE, mid-grey fine grained micaceous becomes bedded and shaley in part, mica sometimes on bedding and more often spotted throughout. Some fine fractures and joints filled with pyrite 145' - 160', several thin aplite veins to 2", major aplite 184.5' to 186,5'. Pyrite again common about 245', locatite prominant in bedding and in spots from 250 to 260 feet approx. Coarse aplite 276.5 to 279.	
	290.5	300	9.5	9.5				APLITE, medium to coarse grained, light coloured very siliceous, many fine chlorite needles, large included zones of quartzite, some margins very sharp others idffuse, some indications of later stage coarser aplite.	
	300	345	45	45				QUARTZITE, fine grained mid-grey generally massive and uniform, some minor biotite banding, pyritic veinlets and joint facing 325 to 335, aplite band 317 - 319.	
	345	371	26	26				QUARTZITE, fine grained bleby texture in part, much pyrite throughout rock, fine blebs and tracts on bedding?. Many terminating structures and signs of mobility. Pyrrhotite and chalcopyrite also present.	
	371	410	39	37				QUARTZITE, mid-grey fine grained, a number of fine dark shaley bands. Some pyrite throughout but generally concentrated in the shaley bands as both transcurrent and concurrent veinlets and irregular masses.	
	410	416	6	5.7				APLITE, very siliceous medium grained very cloudy texture, some mafic patches.	
	416	495	79	75				QUARTZITE, fine graibed, mid-grey with some darker bands and blotches of finer shaley material A few irregular granular bands. This veinlets of pyrite, calcite and quartz in part expandir	

DRILL HOLE No. 314

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo		LOG	GEOLOGICAL DESCRIPTION	FRACTURE
									to irregular modules. Zone of epidote/chlorite alteration 462 - 464'.	
	495	496.5	1.5	1.5					QUARTZITE, fine grained light cryptocrystalline welded zones, blotchy chloritic zones.	
	496.5	501	4.5	4.5				FAULT	NO. 1 FAULT, zone of very chloritc and altered siliceous material, several sheer zones, are strongly welded with quartz and calcite.	F
	501 152.7	517 157.6	16	16				PYROXENE HORNFELS	PYROXENE HORNFELS, a fine grained siliceous rock with abundant pyroxene, very irregular alteration texture with quartz and carbonate blebs and discontinuous veins, some zones show well developed bedding with biotite rich bands.	
	517	557	40	38					PYROXENE HORNFELS, well banded with many fine interbeds of biotite in part garnet rich hornfels. Unit grades to biotite/pyroxene hornfels in part. Bedding highly contorted with irregular swirls and zones ranging from vertical to horizontal. Irregular quartz calcite garnet veins with some very minor scheelite.	
	557	598	41	39					BIOTITE/PYROXENE HORNFELS, fine grained siliceous rock in which relative percentages of biotite and pyroxene grade irregularly throughout giving very mottled texture, decreases and increases in biotite most prominent by very gradational.	
	598	617	19	19					BIOTITE/PYROXENE HORNFELS, essentially as unit above but with scattered irregular fragments rich in carbonate and pyroxene and sometimes containing pyrite and garnet.	
	617 188.0	625 190.5	8	8				PYROXENE/GARNET HORNFELS	PYROXENE/GARNET HORNFELS, fine grained pyroxene rich siliceous rock with irregular calcite ovoids to 2" with well developed garnet and pyroxene rims. A trace of scheelite in some ovoids.	
	190.5	191.4								
A2910	625	628	3	3	0.09	0.019		BIOTITE HORNFELS	BIOTITE HORNFELS, fine grained siliceous minor pyroxene rich bands.	
A2911	628 191.4	630 192.0	2	2	0.11	0.029				
A2912	630 192.0	632 192.6	2	2	3.5	0.056			192.0	
A2913	632 192.6	634 193.2	2	2	1.1	0.015		SKARN 630-664 Lens 202.4	SKARN, very variable grainsize and mineralogy with strong affinities to Pyroxene/Garnet Hornfels,	

Sample No.	From	To	Sample Length	Core Length	WO_3	Mo	Geological Description	Fracturing
							with irregular calcite zones with well developed pyroxene as needles and radiating rosettes, generally coarse grained scheelite disseminated throughout, but decreasing in abundance and tending to be restricted clacite blebs in basal section of unit.	
A2914	634	636	2	2	0.62	0.012		
A2915	636	638	2	2	0.24	(0.01		
A2916	638	640	2	2	0.50	(0.01		
A2917	640	642	2	2	0.30	(0.01		
A2918	642	644	2	2	0.29	(0.01		
A2919	644	646	2	2	0.17	(0.01		
A2920	646	648	2	2	0.32	(0.01		
A2921	648	650	2	2	0.32	(0.01		
A2922	650	652	2	2	0.28	(0.01		
A2923	652	654	2	2	0.11	(0.01		
A2924	654	656	2	2	0.17	(0.01		
A2925	656	658	2	2	0.09	(0.01		
A2926	658	660	2	2	0.12	(0.01		
A2927	660	662	2	2	0.48	(0.01		
A2928	662	664	2	2	0.54	(0.01		
	202.4	203.6						
A2929	664	668 204.8	4	4	0.08	(0.01	PYROXENE/GARNET HORNFELS	PYROXENE/GARNET HORNFELS, fine grained pyroxene rich rock with irregular garnet and garnet calcite blebs and ovoids. Calcite veins and biotite becoming prominent in basal half of unit. A little fine scheelite generally associated with garnet.
A2930	668 203.6	672	4	4	0.11	(0.01		
A2931	672 204.9	676 206.0	4	4	0.07	(0.01		
A2932	676 206.0	680 207.3	4	4	0.09	(0.01		
A2933	680 207.3	682 207.9	2	2	0.07	(0.01		
A2934	682	684	2	2	0.48	(0.01	SKARN 682-716.5 C_2 Lens 218.4	SKARN, medium grained, garnet rich with variable pyroxene silica and calcite, heavily mineralised with generally fine scheelite. From 693 - 700, abundant silica and very strong pyrite.
A2935	684	686	2	2	3.6	0.065		
A2936	686	688	2	2	1.38	0.035		
A2937	688	690	2	2	1.46	0.053		
A2938	690	692	2	2	1.87	0.095		
A2939	692	694	2	2	0.81	0.037		
A2940	694	696	2	2	2.12	0.134		
A2941	696	698	2	2	0.38	0.019		
A2942	698	700	2	2	0.37	(0.01		
A2943	700	702	2	2	0.88	0.019		
A2944	702	704	2	2	0.89	0.024		
A2945	704	706	2	2	0.70	0.019		
A2946	706	708	2	2	0.69	0.027		
A2947	708	710	2	2	0.76	0.035		
A2948	710	712	2	2	0.51	0.036		
A2949	712	714	2	2	0.66	0.016		
A2950	714	716.5	2.5	2.5	0.58	0.013		
A2951	716.5	718	1.5	1.5	0.29	(0.01	BANDED HORNFELS	BANDED HORNFELS, pyroxene hornfels, garnet hornfels and a little calcite hornfels interbedded in variable and irregular units of 1" to 6". Some sporadic fine scheelite associated with garnet.
A2952	718 219.8	720 219.5	2	2	0.14	(0.01		
A2953	720 219.5	722 220.1	2	2	0.05	(0.01		
	722 220.1	733 223.4	11					

SAMPLE No.	FROM	TO	LENGTH SAMPLED	LENGTH ASSAY	ASSAYS WO_3	ASSAYS Mo	GEOLOGICAL DESCRIPTION	FRACTU
	733	782	49	47			BANDED HORNFELS, Calcite Hornfels predominates	
A3062	782 238.4	783 238.7	1	1	0.02	(0.01	with pyroxene and biotite hornfels with minor	
A3063	783 238.7	785	2	2	1.40	0.036	garnet hornfels. Some scheelite associated with	
A2064	785	787	2	2	0.29	(0.01	garnet bands, percentage of scheelite shows general	
A3065	787	789	2	2	0.03	(0.01	increase after 783 feet. Percentage of calcite	
	789	801	12	12			hornfels decreases greatly after 845. Unit	
A3066	801	805	4	4	0.32	(0.01	generally biotite pyroxene hornfels, very	
A2067	805	809	4	4	0.04	(0.01	siliceous after 845.	
A3068	809	811	2	2	0.06	(0.01		
A3069	811	813	2	2	0.05	(0.01		
A3070	813	815	2	2	0.63	(0.01		
A3071	815	817	2	2	0.04	(0.01		
A3072	817	819	2	2	0.34	(0.01		
A3073	819	821	2	2	0.05	(0.01		
A3074	821	823	2	2	0.85	0.019		
A3075	823	825	2	2	0.09	(0.01		
A3076	825	827	2	2	0.52	(0.01		
A3077	827	829	2	2	0.03	0.02		
A3078	829	831	2	2	0.35	0.013		
A3079	831	833	2	2	1.50	0.025		
A3080	833	835	2	2	0.13	(0.01		
A3101	835	837	2	1	1.32	0.039		
A3102	837	839	2	1	0.51	0.018		
A3103	839	841	2	1	0.05	(0.01		
A3104	841	845	4	2.2	0.05	0.015		
	845	873	28	28				
	873	892.5	19.5	19			LOWER VOLCANICS, a fine mottled chloritic rock with some feldspar phenocrysts and variable biotite, many disturbed and module features.	
	892.5	918	25.5	24			GRANITE, variable grainsize and mineralogy, generally rich in biotite in variable bands - no porphyritic orthoclase and very little orthoclase. Upper contact very clean and sharp. Numerous clayey joint surfaces and irregular carbonate and clay veins.	
	918	970	52	50			GRANITE, medium grained very cloudy texture and poorly crystalline minerals, epidotised and serricitised and im part chloritised. Alteration most abundant adjacent to joints several of which contain serpentinised material along with clay and carbonate.	
	970	977	7	7			GRANITE, generally massive and unaltered.	

GRANITE
892.5 - 977
272.0

DIAMOND DRILL HOLE ASSAY SHEET

HOLE No. 314

LOGGED BY P. Le Messurier

Sample No.	FOOTAGES From	To	Length	ASSAY WO_3	Mo	L X A	REMARKS
A2910	625 (190.5)	628 (191.4)	3 } .10	0.09	0.019		
A2911	628	630 (192)	2 }	0.11	0.029		
A2912 ✓	630	632 (192.6)	2 } 2.3	3.5	0.056	7.0	
A2913 ✓	632	634 (193.2)	2 }	1.1	0.015	2.2	
A2914 ✓	634	636 (193.9)	2 } .43	0.62	0.012	1.24	C_1 Lens
A2915 ✓	636	638 (194.5)	2 }	0.24	(0.01	0.48	22 feet at
A2916 ✓	638	640 (195.1)	2 } .40	0.50	(0.01	1.00	0.69% WO_3
A2917 ✓	640	642 (195.7)	2 }	0.30	(0.01	0.60	
A2918 ✓	642	644 (196.3)	2 } .23	0.29	(0.01	0.58	
A2919 ✓	644	646 (196.9)	2 }	0.17	(0.01	0.34	
A2920 ✓	646	648 (197.5)	2 } .32	0.32	(0.01	0.64	
A2921 ✓	648	650 (198.1)	2 }	0.32	(0.01	0.64	
A2922 ✓	650	652 (198.7)	2 } .20	0.28	(0.01	0.56	
A2923 ✓	652	654 (199.3)	2 }	0.11	(0.01		
A2924 ✓	654	656 (199.9)	2 }	0.17	(0.01		
A2925 ✓	656	658 (200.6)	2 } .13	0.09	(0.01		
A2926 ✓	658	660 (201.2)	2 }	0.12	(0.01		
A2927 ✓	660	662 (201.8)	2 } .51	0.48	(0.01	0.96	4' at 0.51% WO_3
A2928 ✓	662	664 (202.4)	2 }	0.54	(0.01	1.08	
A2929	664	668 (203.6)	4	0.08	(0.01		
A2930	668	672 (204.8)	4	0.11	(0.01		
A2931	672	676 (206)	4	0.07	(0.01		
A2932	676	680 (207.3)	4	0.09	(0.01		
A2933	680	682 (207.9)	2 }	0.07	(0.01		
A2934 ✓	682	684 (208.5)	2 } .27	0.48	(0.01	0.96	
A2935 ✓	684	686 (209.1)	2 } 2.49	3.6	0.065	7.2	
A2936 ✓	686	688 (209.7)	2 }	1.38	0.035	2.76	C_2 Lens -
A2937 ✓	688	690 (210.3)	2 } 1.66	1.46	0.053	2.92	36 feet at
A2938 ✓	690	692 (210.9)	2 }	1.87	0.095	3.74	1.02 % WO_3
A2939 ✓	692	694 (211.5)	2 } 1.46	0.81	0.037	1.62	
A2940 ✓	694	696 (212.1)	2 }	2.12	0.134	4.24	
A2941 ✓	696	698 (212.8)	2 } .37	0.38	0.019	0.76	
A2942 ✓	698	700 (213.4)	2 }	0.37	(0.01	0.74	
A2943 ✓	700	702 (214)	2 } .88	0.88	0.019	1.76	
A2944 ✓	702	704 (214.6)	2 }	0.89	0.024	1.78	
A2945 ✓	704	706 (215.2)	2 } .70	0.70	0.019	1.40	
A2946 ✓	706	708 (215.8)	2 }	0.69	0.027	1.38	
A2947 ✓	708	710 (216.4)	2 } .64	0.76	0.035	1.52	
A2948 ✓	710	712 (217)	2 }	0.51	0.036	1.02	
A2949 ✓	712	714 (217.6)	2 }	0.66	0.016	1.32	
A2950 ✓	714	716.5 (218.4)	2.5 } .87	0.58	0.013	1.45	
A2951 ✓	716.5	718 (218.8)	1.5 }	0.29	(0.01	0.43	

DIAMOND DRILL HOLE ASSAY SHEET

HOLE No. 314

LOGGED BY P. Le Messurier

Sample No.	FOOTAGES From	To	Length	ASSAY WO_3	Mo	L X A	REMARKS
A2952	718	720 (219.5)	2 } .10	0.14	(0.01		
A2953	720	722 (220.1)	2 }	0.05	(0.01		
A3062	782 (238.3)	783 (238.7)	1	0.02	(0.01		
A3063	783	785 (239.5)	2	1.40	0.036	2.80	4' at 0.84% WO_3
A3064	785	787 (239.9)	2	0.29	(0.01	0.58	0.023% Mo.
A3065	787	789 (240.5)	2	0.03	(0.01		
A3066	801 (244.1)	805 (245.4)	4	0.32	(0.01		
A3067	805	809 (246.4)	4	0.04	(0.01		
A3068	809	811 (247.2)	2 } .05	0.06	(0.01		
A3069	811	813 (247.8)	2 }	0.05	(0.01		
A3070	813	815 (248.4)	2 } .33	0.63	(0.01	1.26	
A3071	815	817 (249.0)	2 }	0.04	(0.01	0.08	
A3072	817	819 (249.6)	2 } .20	0.34	(0.01	0.68	D. Lum.
A3073	819	821 (250.2)	2 }	0.05	(0.01	0.10	
A3074	821	823 (250.9)	2 } .47	0.85	0.019	1.70	Footwall Ore
A3075	823	825 (251.5)	2 }	0.09	(0.01	0.18	26 feet at
A3076	825	827 (252.1)	2 } .28	0.52	(0.01	1.04	
A3077	827	829 (252.7)	2 }	0.03	0.02	0.06	0.49% WO_3
A3078	829	831 (253.3)	2 } .92	0.35	0.013	0.70	
A3079	831	833 (253.9)	2 }	1.50	0.025	3.00	Mo-D-016
A3080	833	835 (254.5)	2 } .72	0.13	(0.01	0.26	
A3101	835	837 (255.1)	2 }	1.32	0.039	2.64	
A3102	837	839 (255.7)	2 } .20	0.51	0.018	1.02	
A3103	839	841 (256.3)	2 }	0.05	(0.01		
A3104	841	843 (256.9)	2 }	0.05	0.015		

878.3

GEOPEKO LIMITED, KING ISLAND. DIAM. DRILL

SHEET NO. ... OF ...

DRILL HOLE No.

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS						UP	GEOLOGICAL DESCRIPTION	CORING
	212 646	218 66.4	6	2								HORNFELS	
	218	259	41	34								GRANITE	

Hornfels- fine grained highly altered to greenish brown clay in part.-quartz veins common.

Granite medium to coarse grained porphyritic orthoclase in part, generally well crystalised masaic of quartz and feldspar, biotite local variable in percentage some bands of laced chloritisation and serricitisation but generally massive and unaltered.

Hole Completed 259'

Fault 498' (158 m) No. 1 Fault

Breccia Boundary fault?

Q - BH

Possible fault

Fault 528' (161 m) No. 2 fault?

Fault 544' (165.8 m) No. 2 fault

breccia more likely from section.

Fracture 547' (166.7 m)

Fracture 554' (168.9 m)

Fracture 678.5' (206.8 m) - fauly?

Fractrue 711' (216.7 m)

Fault (breccia) 732' (223.1 m)

Fracture 761' (232 m)

Possible fault 766' (233.5 m)

Fracture 772.5' (235.5 m)

Fracture 795' (242.3 m)

Possible fault 818' (249.3 m)

Possible fault 844' (257.3 m)

Incompetent ground - possible fault 855' (260.6 m)

Fracture 916' (279.2 m) in gr

" 944' (287.7 m)

" 963' (293.5 m)

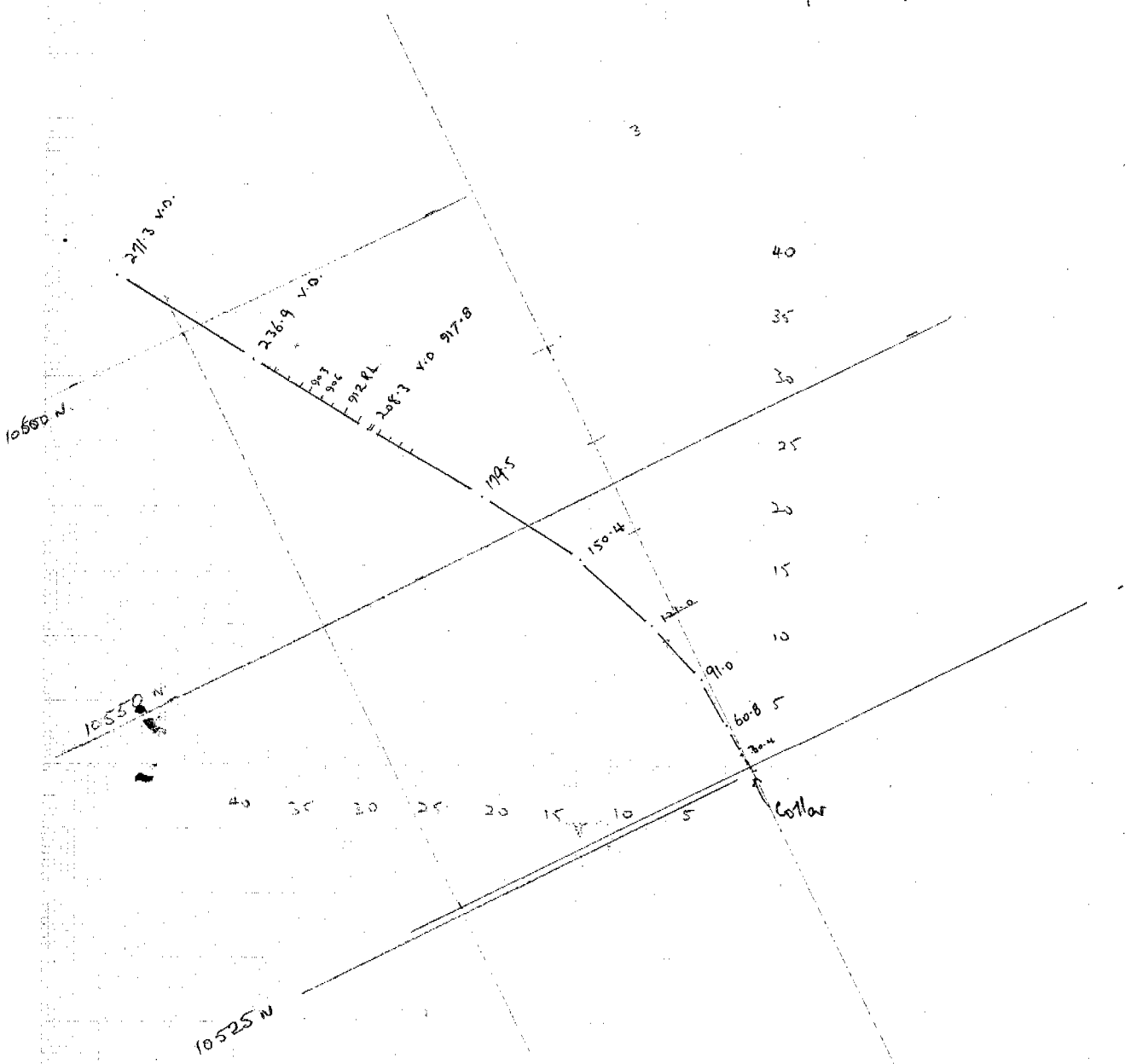
DDH 314

Scale 1:500

Plan View

total depth : 977' 297.79 m

surveyed to : 920' 280.42 m



W.
W.
E
T.V. DEPTH
N.
N
S.
D.D.H. 314
110 lbs/in
920
920

DIAMOND DRILL HOLE BOREHOLE SURVEY

~~48 Rods + 20' Set with Instrument~~ EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. Rainer 1, 314 Date Surveyed 21/6/70

Total Depth ~~9777~~ 977½ Depth Surveyed To 960

Casing Depth 50 Surveyed By V.W. FREESTONE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
Rods Remain	—	OPEN							
	—	OPEN				25	220	6° 30'	N28W
	0	"				26	240	7 15	N29W
	1	"				27	260	7 45	N29W
	2	CLOSED				28	280	8 15	N29W
	≡	Closed			33+1	29	300	8 30	N31W
48	8	20'	1° 30'	N26E	33+1	30	300	8 30	N31W
48	9	20'	1° 30'	N26E		31	320	(Possible movement) 9 0	N38W
	10	40'	1 45	N10E		32	340	9 42 10 0	N42W
	11 ~~40~~	40'	1 45	N10E		33	360	10 30	NHW
	12	60	2 15	N32W		34	380	11 15	NHHW
	13	80	3 0	N29W	28+1	35	400	12 45	N49W
43+1	14	100	3 15	N31W	28+1	36	400	12 45	N49W
43+1	15	100	3 15	N31W		37	420	13 30	N45W
	16	120	3 45	N29W		38	440	14 0	N48W
	17	120	~~4 15~~	~~N30W~~		39	460	14 45	N49W
	18	120				40	480	15 15	N50W
	19	120			23+1	41	500	15 30	N51W
	20	140	4 15	N30W	23+1	42	500	15 30	N51W
	21	160	4 45	N30W		43	520	15 45	N53W
	22	180	5 15	N26W		44	540	16 45	N55W
38+1	23	200	5 45	N25W		45	560		
38+1	24	200	5 45	N25W		46	580		

REMARKS:- The results Of This Survey were combined with the results of the attached survey. It was neccassary to use both instruments because of the excessive angle

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 314 Date Surveyed 21/6/70

Total Depth 977½ Depth Surveyed To 960

Casing Depth 50 Surveyed By V.H FREESTONE

~~Shot~~ No.	Time	Depth	Defl.	Direct.	~~Shot~~ No.	Time	Depth	Defl.	Direct	
18+1	47	600				69	960	(940?)		
18+1	48	600				70		940		
	49	620				71	moving	940		
	50	640			0+1	72	960			
	51	660				73	960			
	52	680				74	960			
13+1	53	700			1+1	75	940			
13+1	54	700				76	920			
	55	720			3+1	77	900			
	56	740				78	880			
	57	760				79	860			
	58	780				80	840	(moving)		
8+1	59	800				81	820			
8+1	60	800			8+1	82	800			
	61	820				83	780			
	62	840				84	760			
	63	860				85	740			
	64	880				86	720			
3+1	65	900			13+1	87	700			
3+1	66	900				88	680			
	67	920				89	660			
	68	940				90	640			

REMARKS:-

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 314 Date Surveyed 21/6/70

Total Depth 977½ Depth Surveyed To 960

Casing Depth 50' Surveyed By V.M. FREESTONE

~~Shot No.~~	Time	Depth	Defl.	Direct.	~~Shot No.~~	Time	Depth	Defl.	Direct	
	91	620	(morning)		~~38+1~~	113	180	5° 15'	N22W	
18+1	92	600				114	160	4 45	N20W	
	93	580			41+1	115	140	4 45	N20W	
	94	560				116	140			
	95	540	17° 0'	N51W		117	140			
	96	520	16 0	N53W		118	140	(morning)		
23+1	97	500	~~16 0~~ 15 45	N53W		119	120	140		
	98	480	15 45	N50W	43+1	120	100	4 60 120	4° 0	N24W
	99	460	15 0	N50W		121	80	18 100	3° 30'	N29W
	100	440	14 30	N45W		122	60	80	3 15	N25W
~~25~~	101	420	13 45	N45W		123	40	60	2 30	N29W
28+1	102	400	13 0	N50W		124	~~20~~ 0	(40')	1 45	N45W
	103	380	11 30	N50W		125	20'			
	104	360	10 45	N40W		126	20'	(morning).		
	105	340	10 0	N46W		127				
	106	320	9 15	N40W		128				
33+1	107	300	8 45	N31W		129				
	108	280	8 30	N29W		130	Closed			129 down shot
	109	260	7 45	N28W		131	OPEN			
	110	240	7 15	N28W		132	OPEN			
	111	220	6 15	N27W						
38+1	112	200	5 30	N23W						

REMARKS:-

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 31H — Date Surveyed 24/6/70

Total Depth 977½ — Depth Surveyed To

Casing Depth 50' (Surveyed after Casing had been taken out) — Surveyed By V.M. FREESTONE

~~Shot No.~~	Time	Depth	Defl.	Direct.	~~Shot No.~~	Time	Depth	Defl.	Direct
		OPEN				21	160	(moving)	
	0	OPEN				22	180	5° 0'	N30W
	1	OPEN				23	200	5° 15'	N30W
	2	OPEN				24	200	5° 15'	N30W
	3	CLOSED				25	220	6 15	N30W
	4	10'				26	240	7 0	N30W
	5	moving				27	260	7 45	N30W
	6	20'				28	280	8 15	N34W
	7	40'				29	300	8 30	N35W
	8	60'				30	300	8 30	N35W
	9	80'				31	320	9 0	N39W
##	10	100				32	340	10 0	N43W
	11	100				33	360	10 45	N41W
*	12	120				34	380	11 0	N40W
*	13	120				35	400	12 45	N45W
*	14	120				36	400	12 45	N45W
*	15	120	(moving)			37	420	13 30	N47W
	16	140	4° 15'	N27W		38	440	14 0	N20W
	17	160	4° 45	N27W		39	460	15 0	N46W
	18	160				40	480	15 15	N46W
	19	160				41	500	15 45	N53W
	20	160				42	500	15 45	N53W

REMARKS:- This hole was surveyed on Sunday 21/6/70 - but ∠ of deviation was too great - Thus the re-run with 90° instrument.

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 314 Date Surveyed 24/6/70

Total Depth 977½ Depth Surveyed To

Casing Depth 50' (surveyed without Casing) Surveyed By V.M. FREESTONE

Shot No.	Time	Depth	Defl.	Direct.	Shot No.	Time	Depth	Defl.	Direct
	43	520	15° 45'	N 45 W		65	900	20° 0'	N 59 W
	44	540	16 45	N 30 W		66	900	20° 0'	N 59 W
	45	560	17 30	N 58 W		67	920	20° 0	N 59 W
	46	580	18 0	N 59 W		68	stuck		
	47	600	18 45	N 72 W		69	"	920+	
	48	600	18 45	N 72 W		70	"		
	49	620	19 15	N 58 W		71			
	50	640	19 15	N 59 W		=	"		
	51	660	19 15	N 59 W		=	"		
	52	680	19 45	N 59 W		81	" (morning)		
	53	700	19 45	N 59 W		82	920		
	54	700	19 45	N 59 W		83	920		
	55	720	20 0	N 58 W		84	920		
	56	740	20 0	N 59 W		85	920		
	57	760	20 0	N 59 W		86	920	[illegible]	
	58	780	20 0	N 57 W	3	87	900	20° 0	N 59 W
	59	800	20 0	N 59 W		88	880	20° 0	N 60 W
	60	800	20 0	N 59 W		89	860	20° 0	N 58 W
	61	820	20 0	N 59 W		90	840	20° 0	N 60 W
	62	840	20 0	N 60 W		91	820	20° 0	N 60 W
	63	860	20 0	N 60 W	8	92	800	20° 0	N 59 W
	64	880	20 0	N 60 W		93	780	20° 0	N 59 W

REMARKS:-

DIAMOND DRILL HOLE BOREHOLE SURVEY

EASTMAN - KODAK MULTISHOT CAMERA

D.D.H. No. 314 Date Surveyed 24/6/70

Total Depth _____ Depth Surveyed To _____

Casing Depth 50' (Surveyed after Casing had been removed) Surveyed By V.M. FREESTONE

~~Shot No.~~	Time	Depth	Defl.	Direct.	~~Shot No.~~	Time	Depth	Defl.	Direct
	94	780	20° 0	N59W		116	340	10° 0'	N44W
	95	760	20° 0	N59W		117	320		
	96	740	20° 0	N61W	33	118	300		
	97	720	19° 45	N58W		119	280		
13	98	700	19 45	N59W		120	260		
	99	680	19 45	N54W		121	240	7 0	N32W
	100	660	19 15	N60W		122	220	6 15	N31W
	101	640	19 15	N58W	38	123	200	5° 15'	N28W
	102	620	19 0	N59W		124	180	5 0	N27W
18	103	600	18 45	N66W		125	160		
	104	~~600~~ 580	18 0	N58W		126	140		
	105	560	17 45	N59W		127	120		
	106	540	16 45	N42W	43	128	100	3° 0'	N27W
	107	520	16 0	N48W		129	80		
23	108	500	15 45	N55W		130	60	(Perhaps wrong)	
	109	480	15 15	N48W		131	40		
	110	460	15 0	N46W		132	20	1° 45'	N56W
	111	440	14 0	N44W		133	10	1° 15'	N54W
	112	420	13 45	N48W		-	-		
28	113	400	13 0	N49W		135	1105 50		
	114	380	11 15	N42W		136	OPEN		
	115	360	10 45	N43W		137	"		

REMARKS:-

D.D.H: 314.

DATE: 24/6/70.

SURVEYED TO: 920'.

DEPTH OF HOLE: 977½'.

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	4	5	6	7	8	9	10	11	12
Depth	Course Length	Drift Angle	Cosine / Sine	Mean Cosine / Mean Sine	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine / Sine	Cotangent / Tangent	Difference
			0·9997	0·9997					0·8988	0·8988	
20	20	1° 30'	0·0262	0·0262	19·994	19·994	0·524	N26E	0·4384	0·4384	0·524
			0·9995	0·9995					0·9848		
40	20	1 45	0·0305	0·0305	19·990	39·984	0·610	N10E	0·1736		1·134
		1 45						N45W	0·7071 / 0·7071		
			0·9992	0·9991					0·8480	0·8613	
60	20	2 15	0·0393	0·0414	19·982	59·966	0·828	N32W	0·5299	0·5073	1·962
			0·9990						0·8746		
		2 30	0·0436					N29W	0·4848		
			0·9986	0·9985					0·8746	0·8904	
80	20	3 0	0·0523	0·0545	19·970	79·936	1·090	N29W	0·4848	0·4537	3·052
			0·9984						0·9063		
		3 15	0·0567					N25W	0·4226		
			0·9984	0·9982		30·45		329	0·8572	0·8659	
100	20	3 15	0·0567	0·0589	19·964	×99·900	1·178	N31W	0·5150	0·4999	4·230
			0·9981						0·8746		
		3 30	0·0610					N29W	0·4848		
			0·9979	0·9977					"	0·8940	
120	20	3 45	0·0654	0·0676	19·954	119·854	1·352	N29W		0·4457	5·582
			0·9976						0·9135		
		4 0	0·0698					N24W	0·4067		
			0·9973	0·9971					0·8660	0·8989	
140	20	4 15	0·0741	0·0770	19·942	139·796	1·540	N30W	0·5000	0·4320	7·122
			0·9966						0·9397		
		4 45	0·0828					N20W	0·3420		
			0·9973						0·8910		
		4 15	0·0741					N27W	0·4540		
			0·9966	0·9966					0·8660	0·8989	
160	20	4 45	0·0828	0·0828	19·932	159·728	1·656	N30W	0·5000	0·4320	8·778
		4 45	"					N20W	0·9397 / 0·3420		
		4 45	"					N27W	0·8910 / 0·4540		
			0·9958	0·9960					0·8988	0·8957	
180	20	5 15	0·0915	0·0893	19·920	179·648	1·786	N26W	0·4384	0·4417	10·564
		5 15	"					N22W	0·9272 / 0·3746		
			0·9962						0·8660		
		5 0	0·0872					N30W	0·5000		
		5 0	"			60·83		N27W	0·8910 / 0·4540		
			0·9950	0·9955				335	0·9063	0·8939	
200	20	5 45	0·1002	0·0947	19·910	×199·558	1·894	N25W	0·4226	0·4457	12·458
			0·9954						0·9205		
		5 30	0·0958					N23W	0·3907		
			0·9958						0·8660		
		5 15	0·0915					N30W	0·5000		
		5 15	"					N28W	0·9829 / 0·4695		
			0·9941	0·9940					0·8660	0·8743	
220	20	6 15	0·1089	0·1099	19·880	219·438	2·198	N30W	0·5000	0·4846	14·656
		6 15	0·9941 / 0·1089					N31W	0·8572 / 0·5150		
		6 15	"					N27W	0·8910 / 0·4540		
		6 30	0·9936						0·9829		
			0·1132					N28W	0·4695		

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13	14		15		16
Coordinate Differences			Northings & Eastings		
	S	E	N	S	E	W
0·4710		0·2297				
		0·4200				
2·7175		1·3847				
0·9705		0·4945	2·7175			1·3847
					1·14	
1·0200		0·5888	3·7375	*		1·9735
1·2087		0·6026	4·9462			2·5761
1·3843		0·6653	6·3305			3·24114
1·4886		0·7154	7·8191			3·9568
1·5997		0·7889	9·4188			4·7457
					3·39	
1·6930		0·8441	11·1118	*		5·5898
1·9217		1·0651	13·0335			6·6549

DDH. NO. 314

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Depth	Course Length	Drift Angle	Cosine Sine	Mean Cosine Sine	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine Sine	Mean Cosine Sine	Def	Coordinate Difference		Rectangular Coordinates	
														N	E
240	20	0 1	0.9920	0.9922	19.844	239.282	2.480	N29W	0.8746	0.8678	17.136	2.1521	1.2301	15.1856	7.8850
		7 15	0.1262	0.1240					0.4848	0.4960				~~11.9290~~	
		7 15	"					N28W	0.8829 0.4695						
			0.9925						0.8660						
		7 0	0.1219					N30W	0.5000						
		7 0	"					N32W	0.9480 0.5299	0.8745					
260	20	7 45	0.9909 0.1349	0.9909 0.1349	19.818	259.100	2.698	N29W	0.8746 0.4848	0.8746 0.4848	19.834	2.3594	1.3080	17.5450 ~~11.8884~~	9.1930
		7 45	"					N28W	0.8829 0.4695						
		7 45	"					N30W	0.8660 0.5000						
280	20	8 15	0.9897 0.1435	0.9895 0.1449	19.790	278.890	2.898	N34W	0.8290 0.5592	0.8594 0.5096	22.732	2.4905	1.4768	20.0355 ~~13.1189~~	10.6698
		8 15	"					N29W	0.8746 0.4848						
		8 30	0.9890 0.1478					N29W	"					6.87	
300	20	8 30	0.9890 0.1478	0.9888 0.1492	19.776	91.03 + 298.666	2.984	329 N31W	0.8572 0.5150	0.8445 0.5345	25.716	2.5200	1.5949	22.5555 ~~14.6989~~	3.74 12.2647
		8 45	0.9884 0.1521					N31W	"						
		8 30	0.9890 0.1478					N35W	0.8192 0.5736						
320	20	9 0	0.9877 0.1564	0.9875 0.1578	19.750	318.416	3.156	N39W	0.7771 0.6293	0.7770 0.6293	28.872	2.4522	1.9861	25.0077 ~~14.154~~	14.2508
		9 0	"					N38W	0.7880 0.6157						
		9 15	0.9870 0.1607					N40W	0.7660 0.6428						
340	20	10 0	0.9848 0.1736	0.9848 0.1736	19.696	338.112	3.472	N42W	0.7431 0.6691	0.7221 0.6913	32.344	2.5071	2.4002	27.5148 ~~16.6582~~	16.6510
		10 0	"					NH6W	0.6947 0.7193						
		10 0	"					N43W	0.7314 0.6820						
		10 0	"					NH4W	0.7193 0.6947						
360	20	10 45	0.9825 0.1865	0.9827 0.1864	19.654	357.766	3.708	NH1W	0.7547 0.6561	0.7507 0.6592	36.052	2.7873	2.4443	30.3021 ~~17.7455~~	19.0953
		10 45	"					N43W	0.7314 0.6820						
		10 30	0.9833 0.1822					NH1W	0.7547 0.6361						
		10 45	0.9825 0.1865					N40W	0.7660 0.6428						
380	20	11 0	0.9816 0.1908	0.9808 0.1951	19.616	377.382	3.902	NH0W	"	0.7178 0.6932	39.954	2.8008	2.7049	33.1029 ~~19.2443~~	21.8002
		11 15	0.9808 0.1951					NH2W	0.7431 0.6691						
		11 15	0.9808 0.1951					NH4W	0.7193 0.6947						
		11 30	0.9799 0.1994					N50W	0.6428 0.7660						

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

D.D.H. Nº 314.

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	Mean Cos Sine	Mean Cosine Sine	6	7	8	9	10	11 Mean Cosine Sine	12
Depth	Course Length	Drift Angle	Cosine Sine	Tangent	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine Sine	Tangent	Deflection
			0.9748	0.9753		120.97		315	0.7071	0.6655	
400	20	12 45	0.2228	0.2207	19.486	396.878	4.456	N45W	0.7071	0.7456	44.410
				0.9744					0.6561		
		13 0		0.2250				N49W	0.7547		
				0.9753							
		12 45		0.2207				N49W	"		
				0.9744					0.6428		
		13 0		0.2250				N50W	0.7660		
			0.9718	0.9724					0.6820	0.6914	
420	20	13 30	0.2355	0.2334	19.436	416.314	4.710	N47W	0.7314	0.7222	49.120
				0.9713					0.6691		
		13 45		0.2377				N48W	0.7431		
				0.9724					0.7071		
		13 30		0.2334				N45W	0.7071		
				0.9713							
		13 45		0.2377				N45W	"		
			0.9697	0.9703					0.9397	0.6985	
440	20	14 0	0.2440	0.2419	19.394	435.708	4.880	N20W?	0.3420	0.7149	54.000
									0.7193		
		14 0		"				N44W	0.6947		
									0.6691		
		14 0		"				N48W	0.7431		
				0.9681					0.7071		
		14 30		0.2504				N45W	0.7071		
			0.9662	0.9670					0.6561	0.6721	
460	20	14 45	0.2577	0.2546	19.324	455.032	5.154	N49W	0.7547	0.7398	59.154
				0.9659					0.6428		
		15 0		0.2588				N50W	0.7660		
									0.6947		
		15 0		"				N46W	0.7193		
		15 0		"				N46W	"		
			0.9642	0.9648					0.6428	0.6623	
480	20	15 15	0.2651	0.2630	19.284	474.316	5.302	N50W	0.7660	0.7571	64.456
				0.9625							
		15 45		0.2714				N50W	"		
				0.9648					0.6947		
		15 15		0.2630				N46W	0.7193		
									0.6691		
		15 15		"				N48W	0.7431		
						150.44		309	0.6293	0.6016	
500	20	15 30	0.9628 0.2703	0.9636 0.2672	19.256	493.572	5.406	N51W	0.7771	0.7984	69.862
				0.9625					0.6018		
		15 45		0.2714				N53W	0.7986		
		15 45		"				N53W	"		
									0.5732		
		15 45		"	19.236			N55W	0.8192	0.6379	
			0.9618	0.9625	0.9619				0.6018	0.6254	
520	20	15 45	0.2735	0.2714	0.2715	512.808	5.470	N53W	0.7986	0.7670	75.332
				0.9613					0.5736		
		16 0		0.2756				N55W	0.8192		
				0.9625					0.7071		
		15 45		0.2714				N45W	0.7071		
				0.9613					0.6691		
		16 0		0.2756				N48W	0.7431		

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13	14		15		16	
Accumulated Difference			Rectangular Differences			
S	E	W	N	S	E	W
2.9655		3.3224	10.99			7.66
~~2.9655~~		~~3.3224~~	36.0684 *		4.20	25.1226
3.2565		3.4016	39.3249			28.5242
~~3.2565~~		~~3.4016~~				
3.4087		3.4887	42.7336			32.0129
~~3.4087~~		~~3.4887~~				
3.4640		3.8129	46.1976			35.8258
~~3.4640~~						
3.5115		4.0141	49.7091			39.8399
3.2522		4.3161	16.14			13.46
			52.9613 *			44.1560
3.4893		4.1955	56.4506			48.3515

D.D.H. No 314.

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	4	5	6	7	8	9	10	11	12
Depth	Course Length	Drift Angle	Mean Cosine - Sine	Cosine Sine Mean Cosine Sine Tangent	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine / Sine	Mean Cosine Sine Tangent	Defl.
540	20	16 45	0·9573 0·2892	0·9576 0·2882	19·146	531·954	5·784	N55W	0·5736 0·8192	0·6015 0·7981	81·116
		17 0		0·9563 0·2924				N51W	0·6293 0·7771		
		16 45		0·9576 0·2882				N30W?	X 0·8660? 0·5000		
		16 45		"				N42W	X 0·7431 0·6691		
560	20	17 30	0·9530 0·3028	0·9537 0·3007	19·060	551·014	6·056	N58W	0·5299 0·8480	0·5225 0·8526	87·172
		17 45		0·9524 0·3049				N59W	0·5150 0·8572		
580	20	18 0	0·9511 0·3090	0·9511 0·3090	19·022	570·036	6·180	N59W	"	0·5225 0·8526	93·352
		18 0		0·9511 0·3090				N58W	0·5299 0·8480		
600	20	18 45	0·9469 0·3214	0·9469 0·3214	18·938	179 SW 588·974	288 6·428	N72W	0·3090 0·9511	0·3578 0·9323	99·780
		18 45		"				N66W	0·4067 0·9135		
620	20	19 15	0·9448 0·3276	0·9441 0·3297	18·896	607·870	6·552	N58W	0·5299 0·8480	0·5225 0·8526	106·332
		19 0		0·9455 0·3256				N59W	0·5150 0·8572		
640	20	19 15	0·9441 0·3297	0·9441 0·3297	18·882	626·752	6·594	N59W	"	0·5225 0·8526	112·926
		19 15		"				N58W	0·5299 0·8480		
660	20	19 15	0·9441 0·3297	"	18·882	645·634	6·594	N59W	0·5150 0·8572	0·5070 0·8616	119·520
		19 15		"				N60W	0·5000 0·8660		
680	20	19 45	0·9412 0·3379	0·9412 0·3379	18·824	664·458	6·758	N59W	0·5150 0·8572	0·5150 0·8572	126·278
		19 45		"				N59W	"		
700	20	19 45	0·9412 0·3379	"	18·824	208·26 683·282	301 6·758	N59W	"	0·5150 0·8572	133·036
		19 45		"				N59W	"		
720	20	20 0	0·9397 0·3420	0·9397 0·3420	18·808	702·090	6·800	N58W	0·5299 0·8480	0·5299 0·8480	139·836
		19 45		0·9412 0·3379				N58W	"		
740	20	20 0	0·9397 0·3420	0·9397 0·3420	18·794	720·884	6·840	N59W	0·5150 0·8572	0·4999 0·8659	146·676
		20 0		"				N61W	0·4848 0·8746		
760	20	20 0	0·9397 0·3420	"	18·794	739·678	6·840	N59W	0·5150 0·8572	0·5150 0·8572	153·516
		20 0		"				N59W	0·5150 0·8572		
780	20	20 0	0·9397 0·3420	"	18·794	758·472	6·840	N59W	"	0·5298 0·8479	160·356
		20 0		"				N57W	0·5446 0·8387		
800	20	20 0	0·9397 0·3420	"	18·794	236·91 777·266	901 6·840	N59W	0·5150 0·8572	0·5150 0·8572	167·196
		20 0		"				N59W	"		

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13	14			15		16	
Co-ordinate Difference				Rectangular Difference			
E	S	S	W	N	S	E	W
3·4781			4·6162	59·9297			52·9677
3·1643			5·1633	63·0940			58·1310
3·2290			5·2691	66·3230			63·4001
2·2999			5·9928	20·91 68·6229 * 6m			21·15 69·3929
3·4234			5·5862	72·0463			74·9791
3·4454			5·6220	75·4917			80·6011
3·3431			5·6814	78·8348			86·2825
3·4804			5·7929	82·3152			92·0754
3·4804			5·7929	26·14 85·7956			29·83 97·8683
3·6033			5·7664	89·3989			103·6347
3·4193			5·9228	92·8182			109·5575
3·5226			5·8632	96·3408			115·4207
3·6238			5·7996	99·9646			121·2203
3·5226			5·8632	31·54 103·4872 *			38·73 127·0835

D.D.H. N° 314.

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	4	5 Mean Cosine / Sine	6	7	8	9	10	11 Mean Cosine / Sine	12	13	14	15	16
Depth	Course Length	Drift Angle	Cosine / Sine	~~Cosine / Tangent~~	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine / Sine	~~Cosine / Tangent~~	Departure		Latitude or Difference		Departure or Difference	
													S		W	
820	20	0 '	0·9397	0·9397					0·5150	0·5075						
		20 0	0·3420	0·3420	18·794	796·060	6·840	N 59 W	0·8572	0·8616	174·036	3·4713		5·8933	106·9585	132·9768
		20 0	"					N 60 W	0·5000 0·8660							
840	20	20 0	"	0·9397 0·3420	18·794	814·854	6·840	N 60 W	"	0·5000 0·8660	180·876	3·4200		5·9234	110·3785	138·9002
		20 0	"					N 60 W	"							
860	20	20 0	"	0·9397 0·3420	18·794	833·648	6·840	N 60 W	"	0·5150 0·8570	187·716	3·5226		5·8619	113·9011	144·7621
		20 0	"					N 58 W	0·5299 0·8480							
880	20	20 0	"	0·9397 0·3420	18·794	852·442	6·840	N 60 W	0·5000 0·8660	0·5000 0·8660	194·556	3·4200		5·9234	117·3211	150·6855
		20 0	"					N 60 W	"							
900	20	20 0	"	0·9397 0·3420	18·794	871·236	6·840	30' N 59 W	0·5150 0·8572	0·5150 0·8572	201·386	3·5226		5·8632	120·8437 *	156·5487
		20 0	"					N 59 W	"							
920	20	20 0	"	0·9397 0·3420	18·794	271·27 890·030	6·840	30' N 59 W	"	0·5150 0·8572	208·236	3·5226		5·8632	37·9 124·3663 *	49·5 162·4119

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

DIAMOND DRILL HOLE NO. 313

LOCATION:	No. 3 Orebody
CO-ORDINATES:	100,602.81E:110,002.35N
R.L.:	395.68 Feet (120.6 m.) 123.9
DATE COMMENCED:	31st March, 1970
DATE COMPLETED:	31st April, 1970.
FINAL DEPTH:	980 Feet (298.7 m.)
DATE SURVEYED:	
LOGGED BY:	J. J. Gresham

327.68

DRILL HOLE No. 313

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH RECVD.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
	0	20 b.l	0	0				No Core	
	20	68		37				DE-SILICIFIED QUARTZITE, soft highly weathered biotite=muscovite hornfels. The degree of weathering varies down the hole. Biotite and muscovite are the dominant minerals with abundant liminite and white (kaolinite?) clay material. The sequence may represent a sequence of desilicified quartzite = weathering decreases down hole.	
	68	82		22			QUARTZITES 37' - 276' 20 Sh.1	QUARTZITES, fairly massive grey-green quartzites. There is some evidence of slip-shearing. Jointing is minor but generally forms a high angle to the core axis (60°) and joint planes are often infilled with pyrite. Some mottling is noted at 81'.	
	82	105						QUARTZITES, fairly massive, generally grey in colour with slight purplish tinge. Pyrite is common throughout and there are occasional patches of muscovite-biotite rich country. Some incipient relict bedding is noted at 100'.	
	105	106	1	1				APLITE, fine grained siliceous aplite of rather basic composition. Pyrite is dispersed throughout.	
	106	146		40				QUARTZITE, grey generally with slight purplish tinge. Some mottling is noted occasionally throughout. Pyrite is ubiquitous. 107 - 109 is strongly broken. Between 125 - 129 there are bands of block shaley material with abundant pyrite. Bedding angles are of the order of 80° to the core axis. The black shale has a mottled appearance. Elsewhere there is occasional evidence of original bedding that has been disrupted.	
	146	160		14				QUARTZITES, mottled quartzites with brown mottles and interbeds of black shales. Bedding to core axis angle approx. 45° but is variable. Pyrite is more abundant in this section. 157 - 158 is a very pale quartzites.	

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACT
	160	168		8				QUARTZITES, consisting of interbedded shales and coarser members. Pyrite flecks throughout.	
	168.5	168.5	0.5					Very fine grained aplite.	
	168.5	215	47.5	47.5				As for 160 - 168'. Generally the darker shale members are only 1 - 3" thick. Angle of bedding is quite variable. Zones 174 -175' and 182' - 183' are very broken. Jointing is variable but strong jointing cuts the core at approx. 60° to the core axis. Pyrite mineralisation appears to diminish with depth but still occurs along the joint faces. Some lamenatives can be seen in some of the shale bands. There is a 4" aplite vein at 211'. The last 4' of the sequence are distinctly coarser grained and mottled in appearance.	
	215	225	10	10				APLITE, fine grained feldspar rich aplite. Micas and mafic minerals occur throughout with an increase in mafics in the last 2'.	
	225	254	29	29				QUARTZITES, grey rather massive fine grained rock with minor pyrite, generally along joint faces.	
	254	258	4	4				APLITE, similar to 215 - 225 section, fine grained with biotite.	
	258	276	18	18				QUARTZITES, fine to medium grained with muscovite visible in places. Pyrite still persists on the joint faces and the core is quite broken at 267'. Shearing is quite strongly developed at 270'	
	276	289		23				FAULT AT 276' PYROXENE-BIOTITE HORNFELS 276 - 291'	
A1959	289	291	2	2	0.08	0.023		PYROXENE-BIOTITE HORNFELS, initially there is 6" of aphanitic pale green siliceous material. Then the rock type is a highly distorted pyroxene-biotite hornfels. There is abundant evidence of fluidity and there are fragments of rock, quartz and calcite throughout. Minor andradite crystals have developed in the calcite pods. Pyrite is also noted. Often it is isolated within the fragments.	

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRILL LOG DRILL HOLE No. 313

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURE
A1888	291	293	2	2	0.36	(0.01	SKARN 291 - 309 942	SKARN, Andradite-grossularite-pyroxene skarn with abundant pods of calcite, occasionally with large needle like crystals of actinolite developed within them. Scheelite mineralisation occurs throughout with some very coarse crystals ($\frac{3}{4}$" at 294) Quartz vein at 301'.	
A1889	293	295	2	2	1.17	0.046			
A1890	295	297	2	2	0.42	0.031			
A1891	297	299	2	2	0.09	(0.01			
A1892	299	301	2	2	0.35	0.022			
A1893	301	303	2	2	0.62	0.029			
A1894	303	305	2	2	0.09	(0.01			
A1895	305	307	2	2	0.05	(0.01			
A1896	307	309	2	2	0.05	(0.01			
A1960	309	311	2	2	0.05	0.037	PYROXENE GARNET HORNFELS 309-324 987	PYROXENE GARNET HORNFELS, highly disturbed green rock with pods of calcite often rimmed with grossularite. Very rare scheelite mineralisation is noted in there. There is a band of biotite hornfels at 319' - 320', and a band of skarn 321 - 322 carrying scheelite. Some Molybdenite mineralisation.	
A1961	311	313	2	2	0.04	(0.01			
A1962	313	315	2	2	0.06	0.012			
A1963	315	317	2	2	0.04	(0.01			
A1964	317	319	2	2	0.03	(0.01			
A1965	319	321	2	2	0.06	0.018			
A1897	321	322	1	1	0.10	0.025			
A1898	322	324	2	2	0.05	(0.01			
A1899	324	326	2	2	0.06	(0.01	SKARN 324 - 373 1137	SKARN, B Lens, fairly fine grained andradite (minor grossularite) skarn with many small calcite fragments and pods. Pyroxene occurs thoughout and large actinolite crystals are often developed. Quite abundant scheelite is disseminated throughout. Minor pyrite and rare molybdenite is noted.	
A1900	326	328	2	2	0.05	(0.01			
A1901	328	330	2	2	0.06	(0.01			
A1902	330	332	2	2	0.45	0.01			
A1903	332	334	2	2	1.02	0.031			
A1904	334	336	2	2	1.24	0.046			
A1905	336	338	2	2	0.22	0.014			
A1906	338	340	2	2	0.46	0.019			
A1907	340	342	2	2	0.47	0.019			
A1908	342	344	2	2	1.12	0.035			
A1909	344	346	2	2	1.50	0.055			
A1910	346	348	2	2	0.79	0.026			
A1911	348	350	2	2	0.64	0.022			
A1912	350	352	2	2	0.36	0.019			
A1913	352	354	2	2	0.48	0.039			
A1914	354	356	2	2	0.23	0.015			
A1915	356	358	2	2	0.26	0.011			
A1916	358	360	2	2	0.46	0.046			
A1917	360	362	2	2	0.58	0.029		The skarn becomes more pyroxene rich with depth, contains globular andrallite crystals at 372' and quite abundant dark actinolite some semblance of banding can be noticed in the last 1'.	
A1918	362	364	2	2	0.23	0.012			
A1919	364	366	2	2	0.36	0.017			
A1920	366	368	2	2	0.39	0.018			
A1921	368	370	2	2	1.04	0.035			
A1922	370	372	2	2	0.99	0.033			
A1923	372	373	1	1	0.21	0.012			

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRILL LOG DRILL HOLE No. 313

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH CO'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURE
A1924	373	375	2	2	1.12	0.125	BANDED SKARN 373 - 396.5' 120.8	BANDED SKARN, a banded pyroxene-garnet rock with bands of andradite and grossularite up to 389' and between 389' - 396.5' there are garnet masses associated with calcite pods and fragments. Calcite pods occur throughout and scheelite mineralisatioh occurs in moderate concentration up to 389' and is very minor between 389 - 396.5'.	
A1925	375	377	2	2	0.08	(0.01			
A1926	377	379	2	2	0.24	(0.01			
A1927	379	381	2	2	0.28	(0.01			
A1928	381	383	2	2	0.21	(0.01			
A1929	383	385	2	2	0.23	(0.01			
A1930	385	387	2	2	0.43	(0.01			
A1931	387	389	2	2	0.06	(0.01			
A1932	389	391	2	2	0.07	(0.01			
A1933	391	393	2	2	0.07	0.012			
A1934	393	395	2	2	0.06	0.012			
A1935	395	396.5	1.5	1.5	0.05	(0.01			
	396.5	440.5					BIOTITE HORNFELS-PYROXENE HORNFELS 396.5 - 440.5 (Volcanics) 134.3	PYROXENE-BIOTITE HORNFELS, not of banded nature but highly disturbed and with the appearance of a metavolcanic. In many places relict feldspars (poorly crystalline) are noted with very strong development between 401 - 412. The rock is strongly jointed and often the joints are filled with calcite. After 415 biotite hornfels (often with darker brown mottles) predominate with rare bands and swirls of pyroxene hornfels. Bands and patches of feldspars occur intermittently down the hole generally associated with pyroxene hornfels. There is a large calcite pod at 420. At 431 and later down the hole there are bands of pale cluster quartzite rock, generally rich in feldspar.	
	440.5	442					QUARTZITE, 440.5 - 442 134.7	QUARTZITE, coarse grained, grey feldsphenthic quartzite.	
	442	445	3	3			PYROXENE HORNFELS-BIOTITE HORNFELS 442 - 445	PYROXENE-BIOTITE HORNFELS, slightly disturbed pyroxene-biotite hornfels, with the last 6" being a finely laminated rock.	
A1936	445	447	1	2	0.04	(0.01	BIOTITE-PYROXENE HORNFELS 445 - 447 136.2	BIOTITE-PYROXENE HORNFELS, very siliceous, laminated, disturbed pyroxene biotite hornfels. at 447 there is a vein of disrupted calcite with associated actinolite.	
A1937	447	449	2	2	2.02	0.05	SKARN, 447 - 456 139	SKARN, Rather fine grained pyroxene rich skarn with small calcite fragments throughout. Moderate disseminated scheelite mineralisation.	
A1938	449	451	2	2	1.40	0.029			
A1939	451	453	2	2	0.80	0.023			
A1940	453	455	2	2	0.44	0.019			
A1941	455	456	1	1	0.16	(0.01			

GEOPERO LIMITED, KING ISLAND. DIAMOND DRILL LOG DRILL HOLE No. 313

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURE
A1942	456	458	2	2	0.03	(0.01	LIMESTONE 456 - 460 140.7	LIMESTONE, fine grained recrystallised limestone with some bands of coarser crystallised material. minor pyrite is associated with these bands.	
A1943	458	460	2	2	0.07	(0.01			
A1944	460	462	2	2	0.68	0.021	SKARN 460 - 464 141.4	SKARN, fine grained skarn with higher grossularite content. Moderate disseminated scheelite mineralisation.	
A1945	462	464	2	2	0.74	0.021			
A1946	464	466	2	2	0.04	(0.01	LIMESTONE 464 - 470.75 143.5	LIMESTONE, rather fine grained crystallised limestone with some banding. There is some grossularite developed in a band at 465. There are bands of grossularite between 467 and 470.75' that carry minor scheelite mineralisation.	
A1947	466	468	2	2	0.04	(0.01			
A1948	468	470.75	2.75	2.75	0.03	(0.01			
A1949	470.75	473	2.25	2.25	0.46	0.01	SKARN 470.75 - 473 144.6	SKARN, Pyroxene rich with moderate disseminated scheelite mineralisation.	
A1950	473	474.5	1.5	1.5	0.37	0.01			
A1951	474.5	476	1.5	1.5	0.02	(0.01	LIMESTONE 474.5 - 507.5 154.6	LIMESTONE, grey fine grained recrystallised limestone with occasional bands. There are occasional bands, swirls and veins of white coarsely crystalline limestone. There are also occasional black laminae of mafic material and at 489' there are some pyroxene bands. At 499 some very minor scheelite mineralisation is noted and occurs at intermittent intervals. Towards the end of the unit the limestone contains more basic material and	
A1952	476	478	2	2	0.03	(0.01			
	478	498	11	11					
A1953	498	500	2	2	0.03	(0.01			
A1954	500	502	2	2	0.03	(0.01			
A1955	502	504	2	2	0.03	(0.01			
A1956	504	507.5	2	3.5	0.03	(0.01			
A1957	507.5	509	1.5	1.5	0.21	(0.01	BIOTITE/PYROXENE HORNFELS 507.5 - 511 155.7	BIOTITE-PYROXENE HORNFELS, initially very siliceous slightly calcareous pyroxene hornfels with minor scheelite then with biotite hornfels bands, containing some ovoid ring like structures. There is a 2" band of limestone at 511.5"	
A1958	509	511	2	2	0.06	(0.01			
	511.5	520	8.5	8.5			BIOTITE HORNFELS 511.5' - 520 158.5	BIOTITE HORNFELS, brown with very minor pyroxene bands.	
	520	522	2	2			QUARTZITE 520 - 522	QUARTZITE, mottled light grey quartzite with dark grey mottles. There is a 2" band of biotite hornfels at 520.5'. The core between 521 - 522' is rather broken.	
	522	588	66	66			BIOTITE HORNFELS 522 - 588 179.2	BIOTITE HORNFELS, brown with bands of calcite	

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRILL LOG DRILL HOLE No. 313

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACT
								occurring between 522 - 527. These bands	
								are approx. at right angles to the core axis	
								and have minor associated grossularite. After	
								these there are occasional blobs, wisps and bands	
								of grey quartzite material. Some very minor	
								pyrite is associated with these. Minor quartz	
								veining between 540 - 541. There are two	
								calcite bands between 557'- 558' and between	
								558 - 561', the rock has a mottled appearance.	
								Between 561 - 567, there are abundant small	
								(up to ½") pale fragments often intimitely	
								associated with sulphides (pyrite). The bands	
								and wisps of grey quartzitic material persist	
								throughout. The pale fragments reappear at	
								514'. The bands become greener with depth and	
								tend to pyroxene hornfels.	
	588	592	4	4			PYROXENE-GARNET HORNFELS 588 - 592 180.4	PYROXENE HORNFELS, with large globs and	
								fragments of calcite often rimmed with and	
								associated with grossularite. No scheelite	
								mineralisation.	
	592	599					BIOTITE HORNFELS 182.6	BIOTITE HORNFELS, large ovoids of calcite	
A2039	595	597	2	2	0.06	0.012		occur in the last 4'.	
A2040	597	599	2	2	0.07	0.017			
A2041	599	601	2	2	0.52	0.012	SKARN 599 - 644 C LENS 196.3	Pyroxene-Andradite-grossularite SKARN with	
A2042	601	603	2	2	1.63	0.025		grossularite the dominant garnet. There is	
A2043	603	605	2	2	0.38	(0.01		abundant calcite veins and fragments throughout,	
A2044	605	607	2	2	0.98	0.012		minor quartz and sulphide and actinolite.	
A2045	607	609	2	2	0.26	(0.01		Scheelite mineralisation occurs throughout and	
A2046	609	611	2	2	0.56	(0.01		is often quite coarse. After 627 the skarn	
A2047	611	613	2	2	0.30	0.01		becomes increasingly pyroxene rich, pods of	
A2048	613	615	2	2	0.21	(0.01		calcite increase, grossularite is the dominant	
A2049	615	617	2	2	0.98	0.015		garnet and the rock tends to have a banded habit.	
A2050	617	619	2	2	2.40	0.042		Scheelite mineralisation decreases. The rock	
A2051	619	621	2	2	0.92	0.013		tends to a pyroxene garnet hornfels.	
A2052	621	623	2	2	0.52	0.013			
A2053	623	625	2	2	0.66	0.13			
A2332	625	627	2	2	0.52	(0.01			
A2333	627	629	2	2	0.25	(0.01			
A2334	629	631	2	2	0.25	(0.01			
A2335	631	633	2	2	0.14	(0.01			
A2336	633	635	2	2	0.18	(0.01			
A2337	635	637	2	2	0.30	(0.01			

GROPEKO LIMITED, KING ISLAND. DIAMOND DRILLING DRILL HOLE No. 313

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH ASSAYED	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTU
A2338	637	639	2	2	0.17	(0.01			
A2339	639	641	2	2	0.12	(0.01			
A2340	641	643	2	2	0.07	(0.01			
A2341	643	644	1	1	0.04	(0.01			
A2342	644	646	2	2	0.06	0.01	? 644 - 651	A highly disturbed pyroxene-biotite hornfels rock with occasional pods of calcite often with associated actinolite and garnet. Very rare scheelite mineralisation.	
A2343	646	648	2	2	0.07	0.01			
A2344	648	650	2	2	0.04	(0.01			
A2345	650	651	1	1	0.05	(0.01			
A2346	651	653	2	2	0.20	(0.01	SKARN 651 - 658 200.5	SKARN, Initially a pyroxene rich fine grained skarn then rather dense andradite-grossularite skarn with calcite throughout, minor sulphides and moderate to strong scheelite mineralisation disseminated throughout.	
A2347	653	655	2	2	0.82	0.015			
A2348	655	658	3	3	1.46	0.042			
A2349	658	660	2	2	(0.01	(0.01	LIMESTONE 658 - 686.5' 209.7	LIMESTONE, white grey banded limestone. The limestone is fairly coarse grained with moderate amounts of dark clastic material. There is a 1" skarn body carrying minor scheelite at 662.5' and minor bands of andradite garnet, often associated with minor pyrite are also noted. Later calcite veins are seen to cut the unit. Banding is particularly distinctive in the last 6' of the unit.	
A2350	684	686.5	2.5	2.5	(0.01	(0.01			
A2351	686.5	688	1.5	1.5	1.20		SKARN 686.5 - 701.5 213.8	SKARN, initially a rather dense skarn with abundant actinolite and moderate sulphide. Pyroxene content increases in depth and skarn becomes banded in nature and towards the end of the unit calcite bands (up to 1"). Scheelite mineralisation is quite strong in the first few feet of the unit but diminishes with depth.	
A2352	688	696	2	2	0.64	0.095			
A2353	690	692	2	2	0.67	0.01			
A2354	692	694	2	2	0.10	(0.01			
A2355	694	696	2	2	0.22	(0.01			
A2356	696	698	2	2	0.27	(0.01			
A2357	698	700	2	2	0.16	(0.01			
A2358	700	701.5	1.5	1.5	0.08	(0.01			
A2359	701.5	704	2.5	2.5	0.05	(0.01	PYROXENE BIOTITE HORNFELS 701.5 - 720.5' 219.6	PYROXENE BIOTITE HORNFELS, banded with minor calcite bands up to 709', often with associated grossularite. After 709 rock is predominantly biotite hornfels.	
	704	720.5							
A2360	720.5'	723	2.5	2.5	0.22	(0.01	LIMESTONE 720.5' - 727' 221.6	LIMESTONE, basically banded although the rock is disturbed and the core broken. Grossularite is developed and there is minor scheelite mineralisation.	
A2361	723	725	2	2	0.09	(0.01			
A2362	725	727	2	1.5	0.021	(0.01			

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRILLING DRILL HOLE No. 313

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTUR
A2363	727	729	2	2.05	0.05	(0.01	BIOTITE/PYROXENE HORNFELS 727 - 729 222.2	BIOTITE/PYROXENE HORNFELS, with minor grossularite and scheelite.	
	729	732	3	3			BIOTITE HORNFELS 729 - 732	BIOTITE HORNFELS, rather massive, dark brown.	
	732	734.5	2.5	2.5			APLITE 732 - 734.5 223.9	APLITE, rather basic medium grained, largely consisting of plagioclase feldspar and biotite in the first 2' with some orthoclase in the last 6".	
	734.5	761	26	6			BANDED HORNFELS 734.5' - 876' 267.0	BANDED HORNFELS, a bedded relatively undisturbed unit of biotite-pyroxene-calcite hornfels. Typical banded grey-white limestone beds occur after with minor associated grossularite. Bands of true andradite skarn are first noted at 761.5' and there is a very strong skarn occurrence between 771' - 780' broken only by occasional biotite hornfels and pyroxene hornfels bands. Limestone is the dominant constituent between 780' and 799' and minor skarn bands persist. Skarn, with moderate scheelite is again quite strongly developed between 799' - 805.75'. After 806' the rock is typical banded hornfels with occasional bands of limestone with some grossularite, and rare bands of skarn carrying minor scheelite. Rock shows a high degree of disturbance in flows and in others the bands are quite undisturbed. Generally the bands form a high angle to the core axis (60 - 80°). Skarn is moderately strongly developed between 837 and 843 but carries only light scheelite mineralisation. Core is quite borken after 836' and is very soft in places. Dominant joint direction is concordant with the banding. Skarn bands rest to the end of the unit. Very broken ground was encountered at the granite contact.	
A2364	761	763	2	2	0.36	(0.01			
A2365	763	765	2	1.5	0.10	(0.01			
A2366	765	767	2	2	0.47	(0.01			
A2367	767	769	2	2	0.03	(0.01			
A2368	769	771	2	2	0.27	(0.01			
A2369	771	773	2	2	1.10	0.015			
A2370	773	775	2	2	1.75	0.037			
A2371	775	777	2	2	1.75	0.040			
A2372	777	779	2	2	1.25	0.023			
A2373	779	780	1	1	1.0	0.035			
A2374	780	783	3	2.5	0.03	(0.01			
A2375	783	785	2	2	0.01	(0.01			
A2376	785	787	2	2	0.42	(0.01			
A2377	787	789	2	2	0.02	(0.01			
A2378	789	791	2	2	0.44	0.01			
A2379	791	793	2	2	0.06	(0.01			
A2380	793	795	2	2	0.11	(0.01			
A2381	795	797	2	2	0.13	0.26			
A2382	797	799	2	2	0.18	(0.01			
A2383	799	801	2	2	1.35	0.029			
A2384	801	803	2	2	0.54	0.021			
A2385	803	805.75	2.75	2.75	0.14	(0.01			
A2386	805.75	808	2.25	2.25	0.08	0.025			
	808	876							
	876	886	11	1			GRANITE 876-980	GRANITE, Pink orthoclase granite, close to the contact there is a marked variation within the granite with basic micaceouspatches and patches where white feldspar is the dominant mineral. The granite becomes more homogeneous with depth and with large (1") pink phenocrysts of feldspar and small white plagioclase, biotite	
	886	980	94	94					

GEOPSKO LIMITED, KING ISLAND. DIAMOND DRILL

DRILL HOLE No. 313

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH RECD.	ASSAYS			UNIT	GEOLOGICAL DESCRIPTION	FRACTURE
									and quartz crystals. The granite is porphyritic in nature. There are often zenoliths of dark micaceous material and these are often observed to have feldspars developed in them. Between 932 - 956' there is a zone with a distinctly stronger concentration of white feldspar. Between 986 - 969 there are zones of green chloritic (?) granite. END OF HOLE 980 FEET	

DIAMOND DRILL HOLE 313

Logged By J. J. Gresham

SAMPLE	FOOTAGES From	To	Length	ASSAYS WO_3	Mo	L X A	REMARKS
A1959	289 89.1	291 89.7	2	0.08	0.023	0.16	
A1888	291	293 89.3	2 } 0.76	0.36	(0.01	0.72	A lens.
A1889	293	295 89.9	2	1.17	0.046	2.34	12' at 0.45% WO_3
A1890	295	297 90.5	2 } .26	0.42	0.031	0.84	
A1891	297	299 91.1	2	0.09	(0.01	0.18	Mo: 0.025
A1892	299	301 91.7	2 } .48	0.35	0.022	0.70	
A1893	301	303 92.9	2	0.62	0.029	1.24	
A1894	303	305 93	2 } .07	0.09	(0.01	0.18	
A1895	305	307 93.6	2	0.05	(0.01	0.10	
A1896	307	309 94.2	2 } .05	0.05	(0.01	0.10	
A1960	309	311 94.8	2	0.05	0.037	0.10	
A1961	311	313 95.4	2 } .05	0.04	(0.01	0.08	
A1962	313	315 96.0	2	0.06	0.012	0.12	
A1963	315	317 96.6	2 } .03	0.04	(0.01	0.08	
A1964	317	319 97.2	2	0.03	(0.01	0.06	
A1965	319	321 97.8	2 } .06	0.06	0.018	0.06	
A1897	321	322 98.1	1	0.10	0.025	0.10	
A1898	322	324 98.8	2	0.05	(0.01	0.10	
A1899	324	326 99.4	2 } 0.06	0.06	(0.01	0.12	
A1900	326	328 100.	2	0.05	(0.01	0.10	
A1901	328	330 100.6	2	0.06	(0.01	0.12	
A1902	330	332 101.2	2 } .73	0.45	0.01	0.90	
A1903	332	334 101.8	2	1.02	0.031	2.04	
A1904	334	336 102.4	2 } .73	1.24	0.046	2.48	
A1905	336	338 103.2	2	0.22	0.014	0.44	
A1906	338	340 103.6	2 } .46	0.46	0.019	0.92	
A1907	340	342 104.2	2	0.47	0.019	0.94	
A1908	342	344 104.8	2 } 1.31	1.12	0.035	2.24	
A1909	344	346 105.5	2	1.50	0.055	3.00	
A1910	346	348 106.1	2 } .71	0.79	0.026	1.78	
A1911	348	350 106.7	2	0.64	0.022	1.28	
A1912	350	352 107.3	2 } .42	0.36	0.019	0.72	
A1913	352	354 107.9	2	0.48	0.039	0.96	45' at C. 0.65% WO_3
A1914	354	356 108.5	2 } .24	0.23	0.015	0.46	UPPER B LENS
A1915	356	358 109.1	2	0.26	0.011	0.52	Mo: 0.030
A1916	358	360 109.7	2 } .53	0.46	0.046	0.92	
A1917	360	362 110.3	2	0.58	0.029	1.16	
A1918	362	364 110.9	2 } .30	0.23	0.012	0.46	
A1919	364	366 111.6	2	0.36	0.017	0.72	
A1920	366	368 112.2	2 } .72	0.39	0.018	0.78	
A1921	368	370 112.8	2	1.04	0.035	2.08	
A1922	370	372 113.4	2 } .73	0.99	0.033	1.98	
A1923	372	373 113.7	1	0.21	0.012	0.21	

DIAMOND DRILL HOLE 313

Logged By J. J. Gresham

SAMPLE	FOOTAGES From	To	Length	ASSAYS WO_3	Mo	L X A	REMARKS
A1924	373	375	2	1.12	0.125	2.24	
A1925	375	377	2	0.08	(0.01	0.16	
A1926	377	379	2	0.24	(0.01	0.48	
A1927	379	381	2	0.28	(0.01	0.52	
A1928	381	383	2	0.21	(0.01	0.42	
A1929	383	385	2	0.23	(0.01	0.46	
A1930	385	387	2	0.43	(0.01	0.86	
A1931	387	389	2	0.06	(0.01	0.12	
A1932	389	391	2	0.07	(0.01	0.14	
A1933	391	393	2	0.07	0.012	0.14	
A1934	393	395	2	0.06	0.012	0.12	
A1935	395	396.5	1.5	0.05	(0.01	0.075	
A1936	445	447	2	0.04	(0.01	0.08	
A1937	447	449	2	2.02	0.05	4.04	
A1938	449	451	2	1.40	0.029	2.80	8 ft at 1.16 % WO_3
A1939	451	453	2	0.80	0.023	1.60	
A1940	453	455	2	0.44	0.019	0.88	
A1941	455	456	1	0.16	(0.01	0.16	
A1942	456	458	2	0.03	(0.01	0.06	
A1943	458	460	2	0.07	(0.01	0.14	
A1944	460	462	2	0.68	0.021	1.36	4' at 0.71% WO_3
A1945	462	464	2	0.74	0.021	1.48	
A1946	464	466	2	0.04	(0.01	0.08	
A1947	466	468	2	0.04	(0.01	0.08	
A1948	468	470.75	2.75	0.03	(0.01	0.0825	
A1949	470.75	473	2.25	0.46	0.01	1.04	3.75' at 0.43% WO_3
A1950	473	474.5	1.5	0.37	0.01	0.56	
A1951	474.5	476	1.5	0.02	(0.01	0.03	
A1952	476	478	2	0.03	(0.01	0.06	
A1953	498	500	2	0.03	(0.01	0.06	
A1954	500	502	2	0.03	(0.01	0.06	
A1955	502	504	2	0.03	(0.01	0.06	
A1956	504	507.5	3.5	0.03	(0.01	0.11	
A1957	507.5	509	1.5	0.21	(0.01	0.315	
A1958	509	511	2	0.06	(0.01	0.12	
A2039	595	597	2	0.06	0.012	0.12	
A2040	597	599	2	0.07	0.017	0.14	
A2041	599	601	2	0.52	0.012	1.04	
A2042	601	603	2	1.63	0.025	3.26	
A2043	603	605	2	0.38	(0.01	0.76	

DIAMOND DRILL HOLE 313

Logged By J. J. Gresham

SAMPLE	FOOTAGES From	To	Length	ASSAYS WO_3	Mo	L X A	REMARKS
A2044	605	607 1850	2 .68	0.98	0.012	1.96	
A2045	607	609 1856	2	0.26	(0.01	0.52	
A2046	609	611 1862	2 .41	0.56	(0.01	1.12	C 1
A2047	611	613 1868	2	0.30	0.01	0.60	
A2048	613	615 1875	2 .26	0.21	(0.01	0.42	
A2049	615	617 1881	2	0.98	0.015	1.96	32' at 0.709% WO_3
A2050	617	619 1887	2 1.69	2.40	0.042	4.80	
A2051	619	621 1893	2	0.92	0.013	1.84	28'@
A2052	621	623	2 .72	0.52	0.013	1.04	Mo: 0.022
A2053	623	625 1905	2	0.66	0.13	1.32	
A2332	625	627 1911	2 .59	0.52	(0.01	1.04	
A2333	627	629 1917	2	0.25	(0.01	0.50	
A2334	629	631 1923	2 .25	0.25	(0.01	0.50	
A2335	631	633 1929	2	0.14	(0.01	0.28	
A2336	633	635 1935	2 .16	0.18	(0.01	0.36	
A2337	635	637 1942	2	0.30	(0.01	0.60	
A2338	637	639 1948	2 .24	0.17	(0.01	0.34	
A2339	639	641 1954	2	0.12	(0.01	0.24	
A2340	641	643 196	2 .09	0.07	(0.01	0.14	
A2341	643	644 196.3	1	0.04	(0.01	0.04	
A2342	644	646 1969	2 .06	0.06	0.01	0.12	
A2343	646	648 197.5	2	0.07	0.01	0.14	
A2344	648	650 198.1	2	0.04	(0.01	0.08	
A2345	650	651 198.7	2 .10	0.05	(0.01	0.10	
A2346	651	653 199.3	2	0.20	(0.01	0.40	
A2347	653	655 199.9	2	0.82	0.015	1.64	5' at 1.20% WO_3
A2348	655	658 200.6	3 1.20	1.46	0.042	4.38	Mo: 0.031
A2349	658	660 201.2	2	(0.01	(0.01	(0.01	
2350	684 208.5	686.5 209.2	2.5	(0.01	(0.01	(0.01	C 2
2351	686.5 209.2	688 209.7	1.5	1.20		1.80	5.5' at 0.80% WO_3
A2352	688	690 210.3	2 .80	0.64	0.095	1.28	4' Mo @ 0.052
A2353	690	692 2109	2	0.67	0.01	1.34	
A2354	629	694 211.5	2	0.10	(0.01	0.20	
A2355	694	696 212.1	2 .16	0.22	(0.01	0.44	
A2356	696	698 2128	2	0.27	(0.01	0.54	2' at 0.27% WO_3
A2357	698	700 213.4	2	0.16	(0.01	0.32	
A2358	700	701.5 213.8	1.5 .10	0.08	(0.01	0.12	
A2359	701.5	704 214.6	2.5	0.05	(0.01	0.13	
A2360	720.5	723 220.4	2.5	0.22	(0.01	0.55	
A2361	723	725 221	2 .16	0.09	(0.01	0.18	
A2362	725	727 221.6	2	0.04	0.01	0.08	
A2363	727	729 222.2	2 .04	0.05	(0.01	0.10	

DIAMOND DRILL HOLE 313

Logged By J. J. Gresham

SAMPLE	FOOTAGES From	To	Length	ASSAYS WO_3	Mo	L X A	REMARKS
A2364	761 (231.9)	763	2	0.36	(0.01	0.72	2' at 0.36% WO_3
A2365	763 (232.6)	765	2	0.10	(0.01	0.20	
A2366	765 (233.2)	767	2	0.47	(0.01	0.94	2' at 0.47% WO_3
A2367	767 (233.8)	769	2	0.03	(0.01	0.06	
A2368	769 (234.4)	771	2	0.27	(0.01	0.54	
A2369	771 (235.0)	773	2 } 1.42	1.10	0.015	2.20	
A2370	773 (235.6)	775	2	1.75	0.037	3.50	11' at 1.20% WO_3
A2371	775 (236.2)	777	2	1.75	0.04	3.50	
A2372	777 (236.8)	779	2 } 1.40	1.25	0.023	2.50	Mo:
A2373	779 (237.4)	780	1	1.0	0.035	1.0	0.026
A2374	780 (237.7)	783	3 } .02	0.03	(0.01	0.09	
A2375	783 (238.6)	785	2	0.01	(0.01	0.02	
A2376	785 (239.3)	787	2	0.42	(0.01	0.84	2' at 0.42% WO_3
A2377	787 (239.9)	789	2	0.02	(0.01	0.04	
A2378	789 (240.5)	791	2	0.44	0.01	0.88	2' at 0.44% WO_3
A2379	791 (241.1)	793	2	0.06	(0.01	0.12	
A2380	793 (241.7)	795	2 } .12	0.11	(0.01	0.22	
A2381	795 (242.3)	797	2	0.13	(0.01	0.26	
A2382	797 (242.9)	799	2	0.18	(0.01	0.36	
A2383	799 (243.5)	801	2 } .95	1.35	0.029	2.70	4' at 0.95% WO_3
A2384	801 (244.1)	803.75 (244.7)	2.75	0.54	0.021	1.08	Mo: 0.025%
A2385	803 (244.7)	805.75	2.75 } .09	0.14	(0.01	0.28	
A2386	805.75 (245.6)	808	2.25	0.08	0.025	0.16	

761 — 791

30' at 0.57

402' (122.5 m) - Breccia - Fault def.

409' (124.6 m) - Major fracture

518' (157.9 m) - Breccia - fault def.

566' (172.5 m) - Breccia - fault def.

288' (179.2 m) - Breccia - fault def.

687' (209.4 m) - Possible fault ch-gh contact

721' (219.8 m) - Major fracture

731' (222.8 m) - Possible fault

802' (244 m) - Possible fault

816' (248.7 m) - Major fracture

836' (254.8 m) - Fault breccia def.

847' (258.2 m) - Major fracture

855' (260.6 m) - Possible fault

862' (262.7 m) - Possible fault

HOLE NO. 313

POSITION	DEPTH	BEARING	DIP	R.L.	EASTING	NORTHING
0	COL.	360° 00'	-90°	1123.9	10390.02	10556.70
1	100 30.48	N 50° 00' E	-89°15			
2	200 60.96	N 06° 00' E	-87°30'			
3	300 91.44	N 41° 00' W	-83°30'			
4	400 121.92	N 39° 00' W	-82° 45'			
5	500 152.40	N 43° 00' W	-81° 00'			
6	600 182.88	N 46° 00' W	-79° 00'			
7	700 213.36	N 49° 00' W	-78° 30'			
8	800 243.84	N 50° 00' W	-78° 00'			
9	900 274.32	N 47° 00' W	-77°30'			
10	960 292.61	N 46° 00' W	-77°30			
11						
12						
13						
14						
15						
16						
17						
18						

INTERSECTIONS 88.7 — 92.4 3.66m@0.45% WO_3 182.6 — 192.3 9.7 m@ 0.71% WO_3

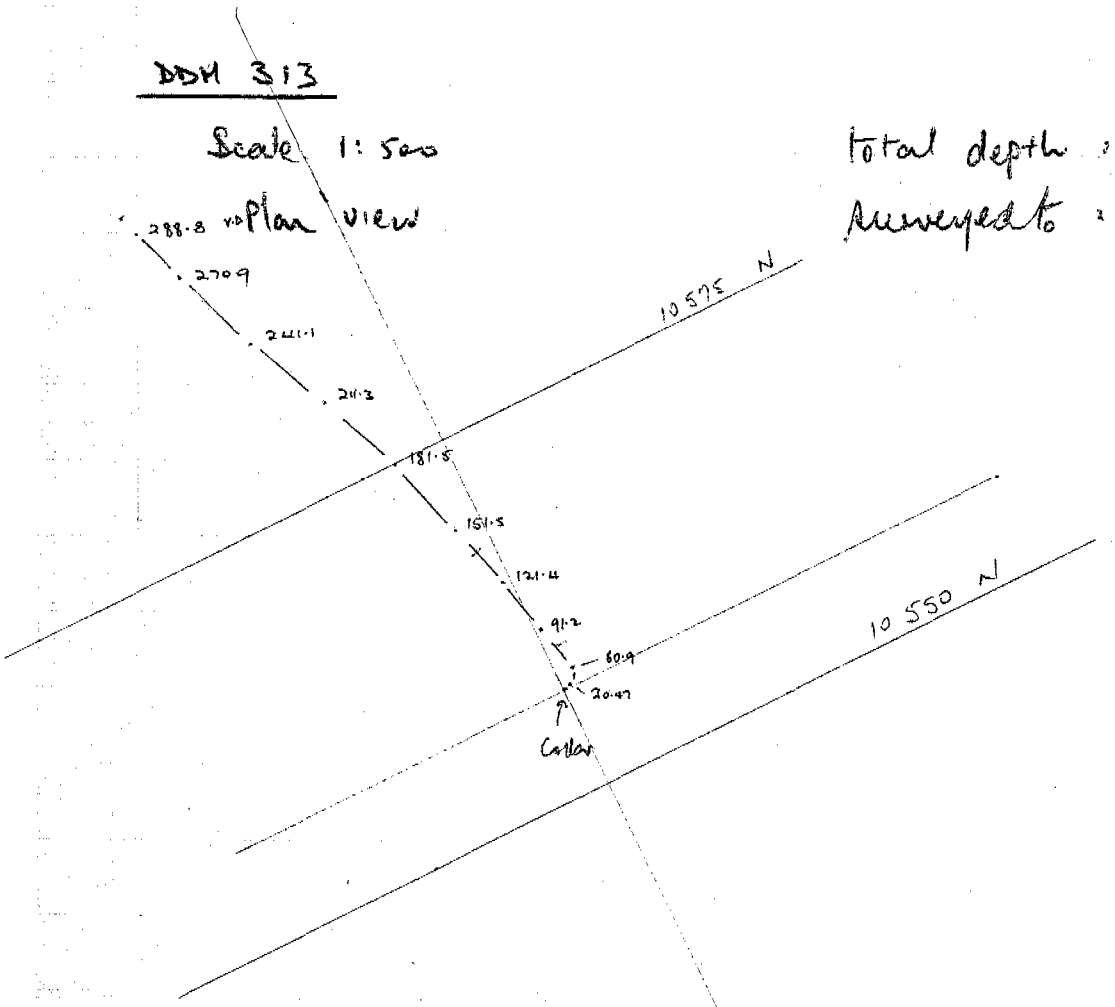
100.6 — 114.3 13.7 m@ 0.65% WO_3 199.2 — 200.6 1.3 m@ 1.20% WO_3

DDH 313

Scale 1: 500

Total depth : 980' 298.7 ~~298.70~~

Surveyed to : 960' 292.61



3(c)
2.8
3.4

DDH

S

N

E

S

W

PROJECTION

D.D.H 313. Surveyed 1/8/70.

Casing 22' Final Depth 980

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	4	5	6	7	8	9	10	11	12
Depth	Course Length	Drift Angle	Cosine Sine	Contangent Tangent	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine Sine	Contangent Tangent	Dep
100	100	0° 45'	.9999 .0131	.0131	99.99	30.47 99.99	1.31	054 N 54 E 006	.5878 .8090	.7265	1.31
200	100	2° 30'	.9990 .0436	.0437	99.90	60.97 199.89	4.36	N 6E	.9945 .1045	1051	5.67
300	100	6° 30'	.9936 .1132	.1139	99.36	91.2 299.25	11.32	N 14W 319	.7547 .6561	.8391	16.99
400	100	7 15'	.9920 .1262	.1272	99.20	121.45 398.45	12.62	N 39W 321	.7771 .6293	.8098	29.61
500	100	9°	.9877 .1564	.1584	98.77	151.55 497.22	15.64	N 43W 317	.7314 .6820	.9325	45.25
600	100	11°	.9816 .1908	.1944	98.16	181.47 595.38	19.08	N 46W 314	.6947 .7193	.9657	64.33
700	100	11° 30'	.9799 .1994	.2035	97.99	211.34 693.37	19.94	N 44W 311	.6561 .7547	.8693	84.27
800	100	12°	.9781 .20779	.2126	97.81	241.15 791.18	20.79	N 51W 309	.6293 .7771	.8098	105.06
900	100	12° 30'	.9763 .2164	.2217	97.63	270.91 888.81	21.64	N 47W 313	.6820 .7314	.9325	126.70
	60				58.57	~~947.38~~	12.98				
960		12° 30	.9763 .2164	.2217		288.76 947.38		314 N 46W	.6947 .7193	.9657	139.68
	60	~~12° 30~~'			58.57	~~888.81~~	12.98				
900	100	12° 30'	.9763 .2164	.2217	97.63	~~888.81~~ ~~791.18~~	21.64	N 47 W	.6820 .7314	.9325	126.70 06
800	100	11° 45'	.9790 .2036	.2080	97.90	791.18 ~~693.28~~	20.36	N 50W	.6428 .7660	.8391	105.06 ~~105.06~~
700	100	11° 30'	.9799 .1994	.2035	97.99	693.28 ~~595.29~~	19.94	N 50W	.6428 .7660	.8391	84.70
600	100	10° 45'	.9825 .1865	.1899	98.25	595.29 ~~497.04~~	18.65	N 46W	.6947 .7193	.9657	64.76
500	100	8° 45'	.9884 .1521	.1539	98.84	497.04	15.21	N 43W	.7314 .6820	.9325	46.11
400	100	7° 15'	.9920 .1262	.1272	99.20	398.20.	12.62	N 39W	.7771 .6293	.8098	30.90
300	100	6° 30	.9936 .1132	.1139	99.36	298.84	11.32	N 14 W	.7547 65.61	.8391	15.28
200	100	2° 30'	.99910 .0436	.0437	99.90	198.94	4.36	N 6E	.9945 .1045	1051	~~23.6~~ 6.96
100	100	0 45'	.9999 .6131	.6131	99.99	~~99.88~~	1.31	N 45E	.7071 .7071	1.000	2.60

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13		14		15		16	
Co-ordinate Difference				Rectangular Difference			
N	S	E	W	N	S	E	W
.970		1.06		0.77 .23		1.06 .32	
4.34		0.46		5.11 1.56		1.52 .46	
8.54			7.43	13.65 4.16			5.91 1.80
9.81			7.94	23.46 9.15			13.85 4.22
11.43			10.67	34.89 10.63			24.52 7.47
13.25			13.72	48.41 14.67			38.24 11.65
13.08			15.05	61.22 18.66			53.29 16.24
13.08			16.15	74.30 22.65			69.44 21.16
14.76			15.83	89.06 27.14			85.27 25.99
9.02			9.34	98.08 29.9			94.61 28.8
14.76			15.83	89.06			85.27
13.09			15.60	74.30			69.44
12.82			8.27	61.21			53.84
12.96			13.41	48.39			38.57
11.12			10.34	35.43			25.16
9.81			7.94	24.31			14.79
8.54			7.43	14.50			6.85
4.34		0.46		5.96		0.58	
0.93		0.93		1.62		1.51	

DIAMOND DRILL HOLE NO. 312

LOCATION: No. 3 Orebody

CO-ORDINATES: 100,400.48E: 109,594.15N

R.L.: 372.31 Feet (113.5 / 3.29) } 116.8 m

DATE COMMENCED: 13th April, 1970.

DATE COMPLETED:

FINAL DEPTH: 653 Feet (199.0)

DATE SURVEYED:

LOGGED BY: P. Le Messurier

301.31 ?

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRILL LOG DRILL HOLE No. 312

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
	0	58	58	0				Surface soil, clay and strongly weathered volcanics, no core recovered.	
	58	71	13	10			VOLCANICS 58 - 337 17.7 102.7	VOLCANICS, mid-grey green, very weathered in part, clay zones, limonite common.	
	71	100	29	25				VOLCANICS, fine light to mid grey felsic. chloritic blebs and irregular mottlings, fairly well jointed with limonitic coatings on joints.	
	100	116	16	12				VOLCANICS, very mottled breccia texture outlined by weathering, fragments of lighter more clay rich material in mottled chloritic matrix.	
	116	140	24	20				VOLCANICS, fine light grey and green mottled with abundant chloritic blebs and irregular mottling in a felsic matrix, jointing quite strong in part with chloritic and limonitic coatings, minor breccia texture.	
	140	321	181	178				VOLCANICS, fine grained midgrey massive and relatively uniform in composition and texture throughout, many green chloritic blebs and mottlings in the fine flesic matrix, irregular lighter patches give apparent breccia texutre in part.	
	321	325	4	4			APLITE 321 - 325 97.8 99.0	APLITE, very siliceous fine to medium grainsize murky texture.	
	325	337	12	11				VOLCANICS, very alterec chloritic, very clayey in part, irregular mottlings.	
	337	340	3	3			BIOTITE HORNFELS 337 - 397 121.0	BIOTITE HORNFELS, very fine siliceous poorly bedded 6" Aplite vein.	
	340	346	6	6			GRANITE 340 (103.6) - 346 105.5	GRANITE, fine to coarse grained, very mafice with abundant biotite for much of unit, a little porphyritic orthoclase.	
	346	397	51	46				BIOTITE HORNFELS, very fine grained, porrly bedded, chloritic joint facings, very broken and puggy in part. Towards base of unit inter beds of pyroxene and pyroxene-garnet hornfels occur.	

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRILL LOG DRILL HOLE No. 312

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS WO3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
								These units range from ½" to 1" in width.	
	397	459	62	61			B METAVOLCANICS 397 - 459 (121-0 139.9)	B METAVOLCANICS, massive medium grained green-brown rock, of biotite, pyroxene feldspar, tremolite, chlorite composition, texturally similar to porphyritic volcanic (dolerite type). Very uniform unit with only minor textural and mineralogical variations.	
	459	479	20	20			GRANITE 459 - 479 (139.9 146.0)	GRANITE, fine to coarse grained very variable throughout, porphyritic in part. Mineralogy also variable and grades from very biotite rich mafic sections to siliceous aplite. Basal 2 feet extremely micaceous and chloritic (due to digestion of)	
	479	494	15	14.5				B METAVOLCANICS, generally the same as the major part of the unit above the preceeding granite.	
A2728	494	496	2	2	0.08	0.015			
A2729	496	498	2	1.5	0.06	0.017			
A2730	498 (151.8)	500	2	2	0.23	(0.01	SKARN	SKARN, mixed pyroxene-garnet skarn poorly bedded in part, irregular calcite and quartz blebs. Disseminated scheelite.	
A2731	500	502	2	2.0	0.66	0.01			
A2732	502	504 (153.6)	2	2	0.73	0.013			
A2733	504	506	2	1.8	0.08	0.013	BIOTITE & PYROXENE HORNFELS 504 - 530 (153.6 161.5)	BIOTITE & PYROXENE HORNFELS, an extremely mixed and variable zone with mineralogy varying from bedded biotite hornfels to a rock with strong affinities to the B Meta Volcanics, with zone of clinozoisite rich pyroxene hornfels. Intensely brecciated from 518 feet with calcite, F? quartz and clinohumite cementing irregular and angular fragments of all lithologies. Two granitic style inclusions and veins.	
A2735	530	532	2	2	0.06	(0.01	SKARN, 530 - 550 (161.5 167.6)	SKARN, pyroxene rich skarn, minor garnet bands, unit shows strong and conclusive evidence of granitisation, with a granitic texture of quartz and feldspar intimately intermixed in the skarn, boundaries are infinitely gradational. Disseminated scheelite throughout.	
A2736	532	534	2	2	1.22	0.027			
A2737	534	536	2	2	0.44	(0.01			
A2738	536	538	2	2	0.44	(0.01			
A2739	538	540	2	2	0.05	0.012			
A2740	540	542	2	2	0.05	0.014			
A2741	542	544	2	2	0.07	0.016			
A2742	544	546	2	2	0.58	0.081			
A2743	546	548	2	2	0.82	0.012			
A2744	548	550	2	2	0.78	0.017			

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRI[LL]ING DRILL HOLE No. 312

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH PROV'D.	ASSAYS WO_3	ASSAYS Mo	UNIT	GEOLOGICAL DESCRIPTION	FRACTURING
A2745	550	552	2	2	0.01	0.012	GRANITE 550 - 653	GRANITE, porphyritic orthoclase to 2" in coarse grained biotite quartz plagioclase matrix, bulk of the granite is of uniform grainsize and mineralogy, however zones of both aplitic and basic mineralogy occur. Considerable epidote staining associated with fractures, zones extend for up to 1 foot on either side of joints.	
	552	653	101	97				END OF HOLE.	

DIAMOND DRILL HOLE 312

Logged By P. Le Messurier

SAMPLE	FOOTAGES From	To	Length	ASSAYS WO_3	Mo	L X A	REMARKS
A2728	494 150.6	496	2 } .07	0.08	0.015	0.16	
A2729	496 151.2	498	2 }	0.06	0.017	0.12	B
A2730	498 151.8	500	2	0.23	(0.01	0.46	6' at 0.54% WO_3
A2731	500 152.4	502	2	0.66	0.01	1.32	
A2732	502 153.0	504	2	0.73	0.013	1.46	Mo. 0.011%
A2733	504 153.6	506	2 } .07	0.08	0.013	0.16	
A2734	506 154.2	508	2 }	0.07	0.01	0.14	
A2735	530 161.5	532	2	0.06	(0.01	0.12	LB
A2736	532 162.1	534	2	1.22	0.027	2.44	6' at 0.7% WO_3
A2737	534 162.8	536	2	0.44	(0.01	0.88	
A2738	536 163.4	538	2	0.44	(0.01	0.88	Mo 0.015%
A2739	538 164.0	540	2 } .06	0.05	0.012	0.10	
A2740	540 164.6	542	2 }	0.05	0.014	0.10	
A2741	542 165.2	544	2 }	0.07	0.016	0.14	LB
A2742	544 165.8	546	2	0.58	0.081	1.16	6' at 0.73% WO_3
A2743	546 166.4	548	2	0.82	0.012	1.64	
A2744	548 167.0	550	2	0.78	0.017	1.56	Mo 0.036
A2745	550 167.6	552 168.2	2	0.01	0.012	0.02	

Lower B
15' 12-09
(55m)

Fault 120' (39.6 m)

Major fracture 132' (40.2 m)

Major fracture 150' (45.7 m)

Major fracture 154' (46.9 m)

Possible fault 163' (49.7 m)

Major fracture 240' (75.0 m)

Major fracture 291' (88.7 m)

Major fracture 307' (93.6 m)

Fault 348' (106.1 m) - 358' (100.1 m)

Incompetent ground 366' (111.6 m)

Fault 394' (120.1 m)

Leach granite @ 477' (145.4 m)

Fault 496' (151.2 m)

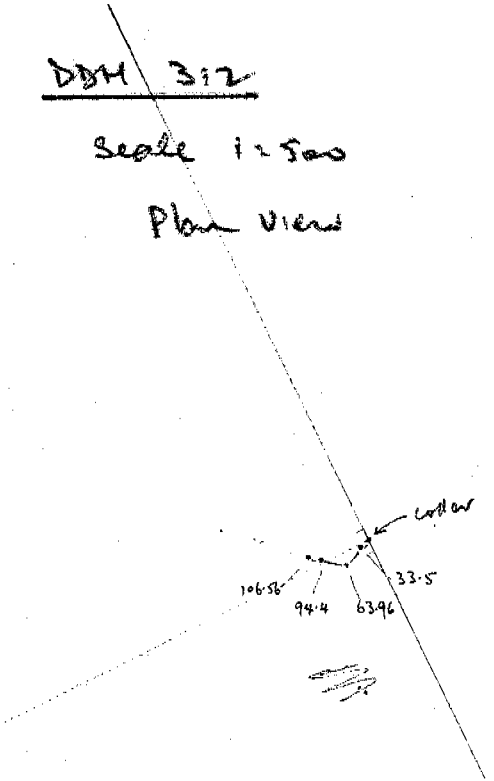
Fault 518' (157.9 m) - 528' (160.9 m)

Major fracture 556' (169.5 m)

DSH 3:2

Scale 1:500

Plan View



total depth : 653' 199.03 m

surveyed to : 350' 106.68 m

PROJECTION

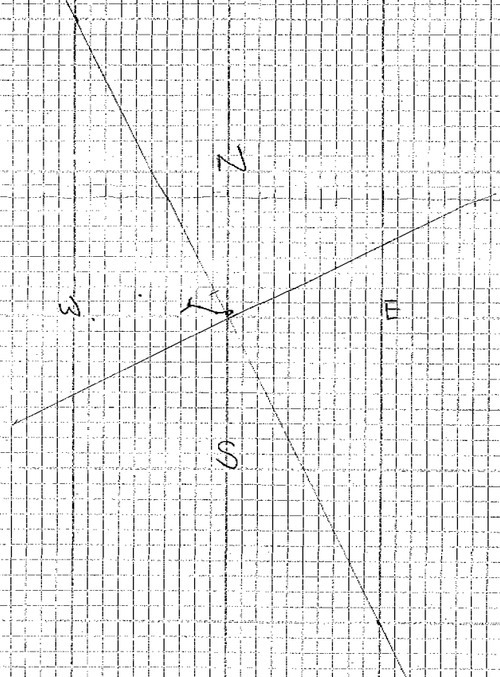
W

E

N

S

DDH 312



D.D.H 312
Depth 653'
Casing (133)

Surveyed 8.5.70

meangles

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1	2	3	4	5	6	7	8	9	10	11	12
Depth	Course Length	Drift Angle	Cosine Sine	Contangent Tangent	Vertical Depth	True Vertical Depth	Course Deviation	Drift Direction	Cosine Sine	Contangent Tangent	Deflection
110	110	1°	.9998 .0175	.0175	109.97	109.97 (33.51)	1.92	N 10 E	.7660 .6428	.8391	1.92
210	100	3°	.9986 .0523	.0524	99.86	209.83 (63.96)	5.23	S 87 W (267)	.0523 .9986	.0524	7.15
310	100	3°.15'	.9984 .0567	.0568	99.84	309.67 (94.39)	5.67	N 75 W (285)	.2588 .9659	.2679	12.82
350	40	3°.15'	.9984 .0567	.0568	39.93	349.60 (106.56)	2.26	N 82 W (278)	.1392 .9903	.1405	15.08
110	110	1°	.9998 .0175	.0175	109.97	109.97	1.92	N 76 E	.2419 .9703	.2493	1.92
210	100	3°	.9986 .0523	.0524	99.86	209.83	5.23	S 86 W	.0698 .9976	.0699	7.15
310	100	4°	.9976 .0698	.0699	99.76	309.59	6.98	N 77 W	.2250 .9744	.2309	14.13
350	40	3°.30'	.9981 .0610	.0612	39.92	349.51	2.44	N 86 W	.0698 .9976	.0699	16.57
							1.92	S 86 W	.7660 .6428		
							5.23	S 86 W	"		
							5.67	N 75 W	.2588 .9659		
							2.26	N 86 W	.1392 .9903		

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13		14		15		16	
Co-ordinate Difference				Rectangular Difference			
N	S	E	W	N	S	E	W
1.47		1.23		1.47		1.23	
	.27		5.22	1.20			3.99
1.46			5.47	2.46			9.46
.31			2.23	2.77			11.69
.46		1.86		.46		1.86	
	0.36		5.21	.10			3.35
1.57			6.80	1.67			10.15
.17			2.43	1.84			12.58
	1.47		1.23	1.45	1.47		1.23 .37
	4.00		3.36	1.67	5.47		4.59 1.40
1.4			5.48	1.22	4.00		10.07 3.07
.3			2.24	1.12	3.69		12.31 3.75

DIAMOND DRILL HOLE NO. DDH 311

LOCATION: No 3 Orebody

CO-ORDINATES: 109,400 1.N, 100,400.2 E.

R.L.: 365.57' (111.47 + 3.29) 114.71 m

DATE COMMENCED: 19th October, 1970

DATE COMPLETED: 18th January, 1971

FINAL DEPTH: 628' (191.4)

DATE SURVEYED: FEB.-71'.

LOGGED BY: P Le Messurier

325.57

SAMPLE NO.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS	CORE	GEOLOGICAL DESCRIPTION
		LINE 109400 No 3 Orebody					
	0	37	37	0		NO CORE	No Core Surface soil and clay and weathered rubble.
	37	40	3	1.5			VOLCANICS, strongly weathered and clayey -
	40	72	32	30			VOLCANICS, fine grained grey green - massive siliceous and feldspathic generally with minor chlorite as wisps and blebs some zones high in chlorite - numerous oblique joints with limonitic clay to 55" mineralogy and texture generally uniform.
	72	114	42	42			VOLCANICS, fine grained essentially felsic with abundant very fine chlorite - scattered blebs of Fe/My mineral chiefly chlorite showing some holes of limonitic (leucoxene) and limonite in part. - many minor variations in texture and composition but unit as a whole massive and uniform. Minor zones of auto brecciation 97'-98' strong clayey joint zone 106'-107'.
	114	156	42	42			VOLCANICS, generaly rock type identical to a continuous with unit above, however numerous irregular felsic and siliceous zones frequency with mamillary and Botryoidal structure. Distribytation of these "hergledergles" varys from abundant to quite sparse and they show considerable variation in shape and composition; Frequently these blotches include chlorite blebs. Towards base of unit chlorite blebs increase in size and felsic fragments decrease in number.
	156	169	13	8			VOLCANICS, general rock type similar to above 162'-163' fault zone with highly sheared and slickensided puggy and altered material - a zone on either side is altered and leached.

GEOPEKO LIMITED, KING ISLAND. DIAMOND DRILL LOG DRILL HOLE No.

SAMPLE No.	DISTANCE FROM	DISTANCE TO	LENGTH SAMPLED	LENGTH REC'D.	ASSAYS	UNIT	GEOLOGICAL DESCRIPTION	FRACTUR
	169	216	47	46			VOLCANICS, fine overall mottling of light and dark areas - chlorite blebs present but no distinct felsic fragments. Clayey fault zone 173' strong jointing for 3 to 4 feet on either side of the fault. Some white belbs developed in unit of about 200'.	
	216 65-8	222 67-7	6	6			APLITE, very fine grained light grey siliceous strongly jointed and fractured - volcanics on either side of aplite strongly jointed with chloritic and serpenteniousjoint faces showing slickensides.	
	222	273.5	51.5	43			VOLCANICS fine grained with overall chlorite mottlings some bleached zones and very occasional felsic blebs. 266'-272' 5 feet core loss.	
	273.5 83-4	281 85-6	7.5	6			APLITE, fine grained siliceous numerous fractures and joints with clay and chlorite. A 2 feet band of altered volcanics 277'-279'	
	281	298	17	17			VOLCANICS, variable chloritic mottling - altered in part to brown iron mineral numerous clayey and chloritic joints.	
	298	322	34	31			VOLCANICS, fine grained abundant fine chloritic blebs often showing lineation at about 45° to L.C.A. oblique joints with chlorite and clay fill, often slickensided.	
	332 101-2	343 104-5	11	9.5			FAULT ZONE- volcanics completely crushed and sheared essentially clay with minor volcanic fragments some quartz blebs and fractured veining.	

DRILL HOLE No.

SAMPLE No.	DISTANCE FROM	DISTANCE TO	FOOTAGE SAMPLED	FOOTAGE CORE	ASSAY	LINE	PETROLOGICAL DESCRIPTION	REMARKS
	343	422	79	75			VOLCANICS, fine grained light grey and grey green small chloritic blebs in sporadic patches and bands. Variable irregular light patches and fragments give breccia texture in part chlorite blebs and wisps show flow ~~fractures~~ around fragments. From 365' chlorite blebs become larger and less frequenct with some bleb free zones generally lighter in colour and more felsic or siliceous Breccia texture particularly well developed near base.	
	422	480	58	56			VOLCANICS, fine grained abundant small chlorite blebs and wisps well developed breccia texture with irregualr shaped fragments and patches of lighter siliceous material chlorite blebs also in fragments. Flow features around margins of fragments: some well developed clayey shear and joint planes 437-448 strongly sheared and clayey in part.	
	480	509	29	27			VOLCANICS, fine grained light grey- generally much more siliceous and/or felsic than previous units. Chloritic blebs virtually absent. Basal 2 feet generally chloritic and altered.	
	509 155.1	525 160.0	16	16			BIOTITE HORNFELS, a very fine dark grey rock with abundant very fine disseminated biotite in a siliceous groundmass. Numerous very fine fractures filled with chlorite and ~~carbonate~~ carbonate Upper and lower contacts very unclear and seems to be graditional in part.	

Features

SAMPLE No.	FROM	TO	CORE RECOVERED	LENGTH EQUIV.	ASSAYS	GEOLOGICAL DESCRIPTION
	525	553.5	28.5	27		VOLCANICS, highly altered and perhaps better termed chlorite/~~tremolite~~ hornfels but typical volcanic auto-breccia and blotchy texture still well preserved. Some sections now entirely soft fibereous chlorite others still felsic with normal chlorite blebs Many chlorite veins Two veins near base of unit contain some specks of scheelite.
	553.5	572	18.5	18		GRANITE highly variable in texture and composition from very fine biotite rich to coarse pegmatite and fine siliceous aplite Most types interspersed with some bands of normal granite. Some minor epidote and chlortie veins common together with veins of clinohemite, silica carbonate.
	572	628	56	56		GRANITE coarse grained, massive prophyritic orthoclase in crystalline mosiac of plagioclase, orthoclase and quartz with acessory biotite.

Major fracture 58' (17.7 m)

Major fracture 861' (25.6 m)

Incompetent ground 106' (32.3 m)

Fault 162' (49.4 m)

Incompetent ground 172' (52.4 m)

Major fracture 211' (64.3 m)

Major fracture 253' (77.1 m)

Possible fault 260' (79.2 m)

Incompetent ground 297' (90.5 m)

Incompetent ground 308 (93.9 m)

Failt 332' (101.2 m) - 344 (104.9 m)

Major fracture 347' (105.8 m)

Fault 402' (122.5 m)

Fault 415' (126.5 m)

Fault 439' (133.8 m) - 446' (133.9 m)

Major fracture 498' (151.8 m)

Major fracture 528' (160.9 m)

DIAMOND DRILL HOLE SUMMARY

SHEET NO 1 OF 1

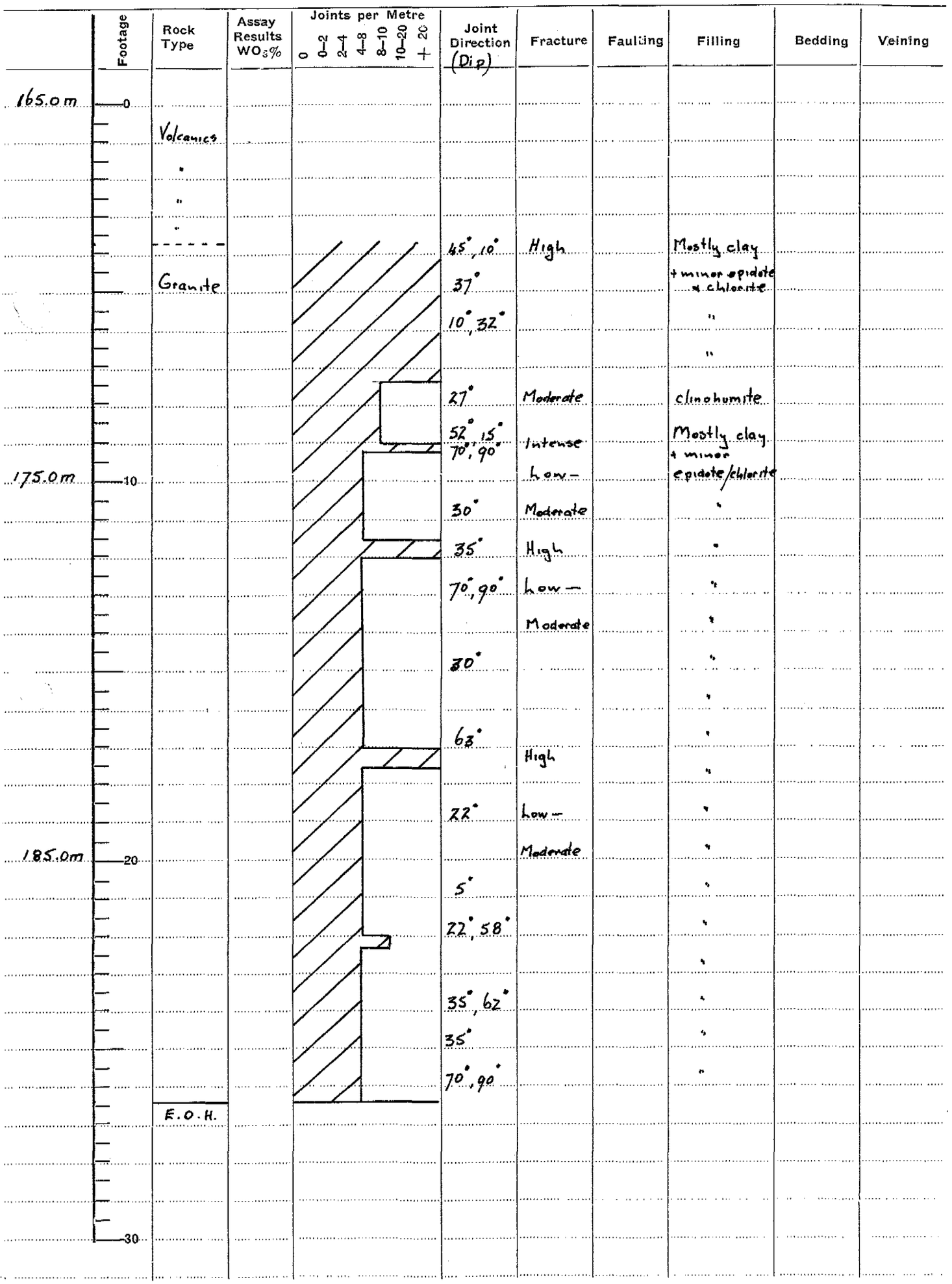
D.D.H. 311 FINAL DEPTH 191.4m.

CO-ORDINATES N 109 400.1 E 100400.2 RELATIVE LEVEL 111.4m.

DATE COMMENCED 19/10/70 DATE COMPLETED 18/1/71

DATE SURVEYED

LOCALITY: No 3 OREBODY



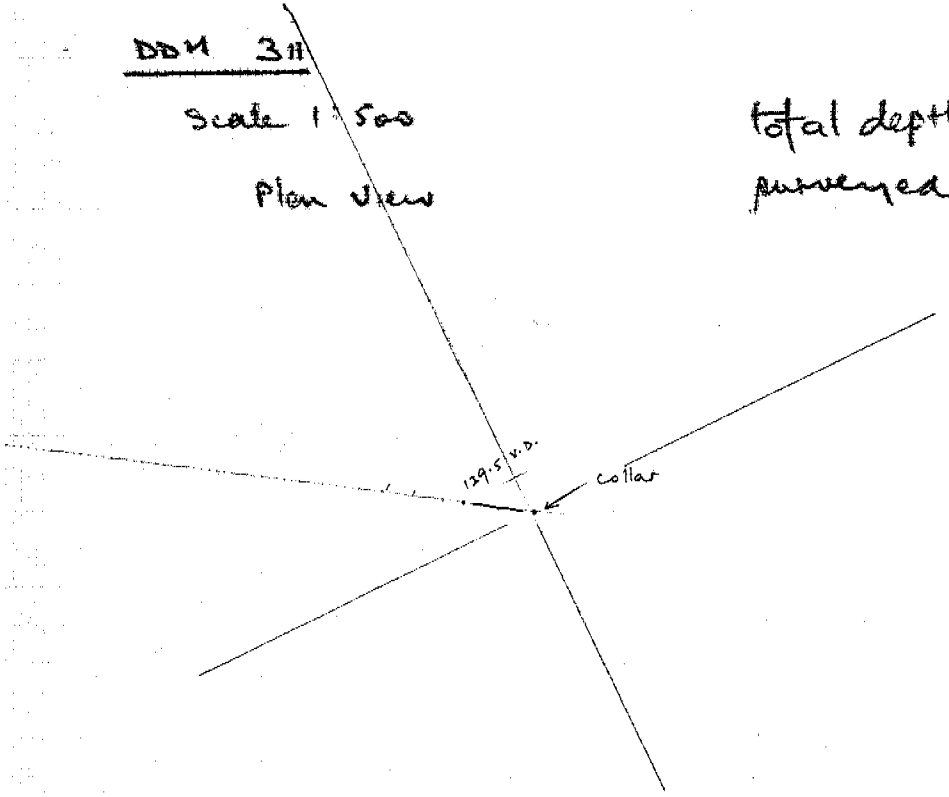
DDH 311

Scale 1:500

Plan View

total depth : 628' 191.4 m

surveyed to : 425' 129.5 m



W E N S 628' D.D.H. 311.

200

300

400

500

N

W E

S

B-2

D.D.H. N°. 324.
DATE SURVEYED 28/7/70
TOTAL DEPTH: 572'
SURVEYED TO: 560'
CASING DEPTH: 15'

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1 Depth	2 Course Length	3 Drift Angle	4 Cosine Slope (mean of Drift L. 1.0000)	5 Mean Drift angle	6 Vertical Depth	7 True Vertical Depth	8 Course Deviation	9 Drift Direction	10 Cosine Bearing	11 Mean Drift angle Bearing	12 Deflection
		0 '		0 '							
20	20		0·0044	0 15	20·00	20·000	0·088				0·088
		0 15	1·0000								
40	20	0 30	0·0066	0 22½	20·00	40·000	0·132				0·220
		0 15	1·0000								
60	20	0 30	0·0087	0 30	20·00	60·000	0·174	N5W			0·394
		0 30	0·9998						0·4226		
80	20	1 0	0·0153	0 52½	19·996 *	79·996	0·306	N65W	0·9063	N65W	0·700
		0 45	0·9998			30·48		N66W	0·5736	305	
100	20	1 0	0·0175	1 0	19·996 *	99·992	0·350	N55W	0·8192	N55W	1·050
		1 0						N56W			
		0·9998							0·4924		
120	20	1 15	0·0218	1 15	19·996	119·988	0·436	N61W	0·8704	N60½W	1·486
		1 15	0·9997					N60W	0·4848		
140	20	1 30	0·0262	1 30	19·994	139·982	0·524	N62W	0·8746	N61W	2·010
		1 30	0·9996					N60W	0·4147		
160	20	1 45	0·0284	1 37½	19·992	159·974	0·568	N65W	0·9100	N65½W	2·578
		1 30	0·9994					N66W	0·4462		
180	20	2 0	0·0327	1 52½	19·988	179·962	0·654	N62W	0·8949	N63½W	3·232
		1 45	0·9994			60·92		N65W	0·4772	299	
200	20	2 0	0·0327	1 52½	19·988 *	199·950	0·654	N59W	0·8788	N61½W	3·886
		2 45	0·9994					N68W	0·4226		
220	20	2 0	0·0349	2 0	19·988	219·938	0·698	N62W	0·9063	N65W	4·584
		2 0	0·9993					N68W	0·4067		
240	20	2 15	0·0371	2 7½	19·986	239·924	0·742	N64W	0·9135	N66W	5·326
		2 0	0·9992			08		N68W	0·3584		
260	20	2 15	0·0393	2 15	19·984	259·9	0·786	N70W	0·9336	N69W	6·112
		2 15	0·9991					N68W	0·4067		
280	20	2 30	0·0415	2 22½	19·982	279·89	0·830	N71W	0·9135	N66W	6·942
		2 15	0·9990			91·4 *		N61W	0·4617	298	
300	20	2 30	0·0436	2 30	19·980	299·87	0·872	N65W	0·8870	N62½W	7·814
		2 30						N60W			

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13 Co-ordinate Difference N	13 S	14 E	14 W	15 Rectangular Distance N	15 S	16 E	16 W
0·2958			0·6344 *	0·2958			0·63444
0·2008			0·2867 *	0·1966			0·9211 1.08
0·2147			0·3795	0·7113			1·3006
0·2540			0·4583	0·9653			1·7589
0·2355			0·5169	1·2008			2·2758
0·2918			0·5853	1·4826			2·8611
0·3121			0·5747 * .55	1·8047			1.05 3·4358
0·2950			0·6326	2·0997			4·0684
0·3018			0·6778	2·4015			4·7462
0·2817			0·7338	2·6832			5·4800
0·3376			0·7582	3·0208			6·2382
0·4026			0·7735	1.04 * 3·4234			2.14 7·0117

D.D.H. N° 324.

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 1

1 Depth	2 Course Length	3 Drift Angle	4 Mean Drift angle	5 Course Direction	6 Vertical Depth	7 True Vertical Depth	8 Course Deviation	9 Drift Direction	10 Factor	11 Mean Drift angle	12 Deflection
320	20	2 30	0·9990 0·0436	2 30	19·980	319·850	0·872	N 65 W	0·4467 0·8870	N 62½ W	8·686
		2 30						N 60 W			
340	20	2 45	0·9988 0·0480	2 45	19·976	339·826	0·960	N 56 W	0·5519 0·8339	N 56½ W	9·646
		2 45						N 57 W			
360	20	2 45	0·9987 0·0502	2 52½	19·974	359·800	1·004	N 52 W	0·5664 0·8241	N 55·½ W	10·650
		3 0						N 54 W			
380	20	3 0	0·9986 0·0523	3 0	19·972	379·772	1·046	N 52 W	0·6018 0·7986	N 53 W	11·696
		3 0						N 54 W			
400	20	3 30	0·9984 0·0567	3 15	19·968	* 399·740 12184	1·134	N 51 W	0·6428 0·7660	310 N 56 W	12·830
		3 0						N 48 W			
420	20	3 30	0·9981 0·0610	3 30	19·962	419·702	1·220	N 45 W	0·7069 0·7133	N 45 ½ W	14·050
		3 30						N 46 W			
440	20	4 0	0·9977 0·0676	3 52½	19·954	439·656	1·352	N 34 W	0·7986 0·6018	N 37 W	15·402
		3 45						N 40 W			
460	20	4 0	0·9977 0·0676	3 52½	19·954	459·610	1·352	N 32 W	0·8434 0·5373	N 32½ W	16·754
		3 45						N 33 W			
480	20	4 0	0·9977 0·0676	3 52½	19·954	479·564	1·352	N 31 W	0·8387 0·5446	N 33 W	18·106
		3 45						N 35 W			
500	20	4 0	0·9976 0·0698	4 0	19·952	* 499·516	1·396	N 33 W	0·8387 0·5446	321 N 33 W	19·502
		4 0						N 33 W			
520	20	4 0	0·9976 0·0698	4 0	19·952	519·468	1·396	N 31 W	0·8480 0·5292	N 32 W	20·898
		4 0						N 33 W			
540	20	4 15	0·9973 0·0741	4 15	19·946	539·414	1·482	N 34 W	0·8192 0·5736	N 35 W	22·380
		4 15						N 36 W			
560	20	4 0	0·9976 0·0698	4 0	19·952	* 559·366 1705	1·396	N 35 W	0·8192 0·5736	325 N 35 W	23·776

EASTMAN MULTISHOT DRILL HOLE SURVEY

CALCULATION SHEET NO. 2

13	14		15		16			
Co-ordinate Difference			Rectangular Coordinates					
S	S	E	W	N	S	E	W
0·4026			0·7735	3·8260			7·7852
0·5298			0·8005	4·3558			8·5857
0·5687			0·8274	4·9245			9·4131
0·6295			0·8353	5·5540			10·2484
0·7289			0·8694	* 1.91 6·2829			3·38 11·1178
0·8551			0·8702	7·1380			11·9880
1·0797			0·8136	8·2177			12·8016
1·1403			0·7264	9·3580			13·5280
1·1339			0·7363	10·4919			14·2643
1·1708 ~~0·7603~~			0·7603	* 11·6627			15·0246
1·1838			0·7397	12·8465			15·7643
1·2140			0·8501	14·0605			16·6144
1·1436			0·8007	* 4063 15·2041			5031 17·4151