GEOPEKO LIMITED

KING ISLAND GROUP

PROGRESS REPORT

No. 3 OREBODY - KING ISLAND

by

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KING ISLAND JULY, 1969.

CONTENTS

TABLES

ACCOMPANYING PLANS

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1. SUMMARY

An extensive exploration programme for tungsten mineralisation has been carried out over the Investigator 1 area. This work indicated a number of geochemical and geophysical anomalies warranting further investigations.

The most promising of the anomalies was diamond drilled and tungsten mineralisation encountered. This area has been drilled in detail and what is known as the No. 3 Orebody largely delineated to Line 9,600N.

The orebody is located between an intrusive igneous body and a major fault and consists of three separate ore horizons. The uppermost or A lens horizon has been adequately drilled. The B and C lens horizons have not yet been drilled sufficiently.

Reserve estimates indicate 2,275,000 tons of tungsten ore at an average grade of 1.13% WO_3 within this area.

The shape of the orebody has not been delineated to the South of Line 9,600N where further extension of A, B and C lens ore horizons are expected.

Further drilling is required for additional grade and geological information as well as to define the orebody to the South of Line 9,600N.

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SUPERVISING GEOLOGIST.

2. INTRODUCTION

This report sets out to document geological investigations carried out in the No. 3 Orebody area. Results of exploration which has been carried out in this area since late 1967 have not been previously documented and no comprehensive appraisal has been made of the area.

This report can be best considered in three sections. Firstly, an outline of the geology of the area covering the mineralisation and its environment. Secondly, a calculation of the ore reserve within the No. 3 Orebody as it is interpreted at present. Thirdly, a proposal for an extensive diamond drilling programme to upgrade our information on the No. 3 Orebody and to test for its extension to the south.

3. PREVIOUS WORK

(i) Summary

Work was commenced in this area by King Island Scheelite (1947) Limited about November of 1967.

The auger drilling was planned by Mr. P. Anthony, Senior Geologist, and supervised by Messrs. T. Scott and C. Horn, Geologists, as well as by Mr. D. Pursell, Mine Superintendent. Diamond drilling commenced in July of 1968. Hole layout and control was by above mentioned from beginning to the 1st December, 1968, by Mr. N. Kinnane, Geologist, from the 1st to 31st December, 1968, by Mr. A. Jannink, Consultant Geologist (P. Anthony and Partners), from the 1st January to the 5th March, 1969, and by L. Szabo, Senior Geologist, from the 6th March, 1969, up to date.

No drilling proposal or reports as to results and basis of work are available. In accordance with the contemporary policy, the drill holes were concentrated over the area of A lens mineralisation to prepare it for open cut operation. Detailed exploration of B and C lens mineralisation was postponed.

This report is the first attempt to document and elaborate the drill hole information available.

(ii) Regional Exploration

Outcrops are very sparse in this area and surface mapping yielded little information as to the geology of the area. Initial exploration was principally by auger drilling with the analysis of bedrock samples to provide geochemical information.

This programme indicated a number of promising anomalies of which the most promising was then diamond drilled.

The results of the regional exploration are more fully discussed in a report on the Investigator 1 area of which the No. 3 Orebody forms part.

(iii) Diamond Drilling

Detailed diamond drilling was commenced on the geochemical anomaly indicated as being closest to the granite contact.

3. Previous Work (Contd.)

(iii) Diamond Drilling (Contd.)

35 holes for a total of 18,699 feet have been drilled to date. One drill hole is still in progress. The holes were put down largely on 100 feet by 200 feet grid, but many intermediate holes were also drilled.

A list of diamond drill holes and summary of drilling results are set out in Table 1.

This programme was rather unco-ordinated. Many unnecessary angle holes were drilled and many holes were terminated prematurely. Only three of the eleven inclined holes were surveyed. Deflection in hole No. 222 appears to have been extremely bad and it is impossible to include this hole in an evaluation of the orebody.

Four holes were abandoned at shallow depths on Lines 300E and 400E. Considerable circulation problems were encountered in brecciated ground however lack of perseverance and inadequate rig capacity greatly reduced chances of completion of these holes, in an area which is of considerable importance.

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Table 1 SUMMARY OF DRILL HOLE RESULTS

No.	D.D.H. No.	Dip	Depth Feet	Intersected Mineralisation			Bottom in Granite	Note
				A	B	C		
1	221	V	957	x	x	x	+	
2	222	50°	961	x	Unreliable			Unsurveyed
3	223	50°	319	-	-	-	-	"
4	225	60°	327	-	-	-	+	"
5	226	60°	551	-	-	-	+	"
6	227	60°	666.5	-	-	-	+	"
7	228	60°	663	-	-	-	+	"
8	229	60°	767	x	x	x	-	
9	230	60°	152	-	-	-	-	Abandoned, Unsurveyed
10	230A	60°	70	-	-	-	-	Abandoned Unsurveyed
11	231	60°	963	x	x	x	+	
12	234	60°	685	x	x	x	+	
13	236	V	252	-	-	-	-	Abandoned
14	237	V	303	x	-	-	-	
15	238	V	805.5	-	x	x	+	
16	239	V	440	O	x	-	-	
17	240	V	401	O	x	-	-	
18	241	V	190	x	-	-	-	
19	243	V	509	O	x	O	+	
20	244	V	300	O	-	-	-	
21	246	V	865	x	x	x	+	
22	247	V	241.75	-	-	-	+	
23	248	V	315	-	-	-	+	
24	249	V	559.5	O	x	-	-	
25	250	V	212.75	-	-	-	+	
26	251	V	752	O	O	x	+	
27	252	V	647	O	x	x	+	
28	253A	V	937	x	x	x	+	
29	254	V	417	O	x	O	+	
30	255	V	150	-	-	-	-	Abandoned
31	264	V	851	x	x	x	+	
32	265	V	825	x	x	x	+	
33	268	V	348	O	-	-	-	
34	269	V	593	O	x	-	-	
35	270	V	700	O	x	x	+	

Total Footage 18699 Feet

Legend: x = The horizon was intersected with mineralisation.
O = The horizon was intersected without mineralisation.
+ = The hole reached the granite.
V = Vertical.

3. Previous Work (Contd.)

(iv) Geology

a) Stratigraphy

The general stratigraphy of the No. 3 Orebody area is set out in Table 11.

Table 11

STRATIGRAPHY OF No. 3 OREBODY AREA

Unit	Thickness
8. Volcanics	∓1000 feet (thinning out to North)
7. Biotite-Muscovite Horfels, Spotted Shale, including an elongated lens of Stylotlitic Limestone with mineralised Skarn and pyroxene Hornfels. (A Lens)	150 - 300 feet
6. Dolerite Sill, contemporary with uppermost Volcanics (No. 8 bed).	50 - 120 feet (wedging out to North)
5. Irregularly bedded, impure dolomitic limestone partly altered, with scheelite mineralisation in upper part. (B Lens)	50 - 100 feet
4. Biotite Hornfels, Biotite-Pyroxene Hornfels, bedded Siltstone, with some marly bands.	50 - 100 feet
3. Andradite Skarn, Diopside-Grossularite Hornfels, Marble, fragmental Limestone with scheelite Mineralisation. (C Lens)	100 - 200 feet
2. Biotite Hornfels, Diopside Hornfels, Marble, Garnet Hornfels, etc. bedded series, with small mineralised lenses, (bedded marl with lenses and bands of limestone).	100 - 200 feet (?)
1. Quartzite, Slate, Clastic Sediments	Unknown

Previous workers have allotted these beds both pre-Cambrian and Cambrian ages. No positive determination of age is possible at our present state of knowledge.

3. Previous Work (Contd.)

(iv) Geology (Contd.)

a) Stratigraphy (Contd.)

These units are broardly correlatable with the sequence at Grassy where unit 1 is known as the Footwall Quartzite, units 2 to 7 as the Mine Series, and unit 8 as Hanging Wall Volcanics.

b) Structure

The North-North-Westerly elongated orebody is located between an intrusive granite body (to West) and a major fault (to East). The Eastern extension of main granite body or a major dyke closes off the ore horizons to the North. A lens reaches the pre-Quaternary surface forming a sub-outcrop on Line 10,100. To the South the ore horizons dip away at an angle of from 10 to 20 degrees. The ore lenses are largely conformable with the host rocks.

The presence of a major out swelling of the granite is postulated between line 10,100N and 10,200N crossing lines 200E and 300E. To the South of this area four drill holes were abandoned on the lines 300E and 400E because of heavily brecciated bedrock and water loss. Information is not available about the structural conditions and potential of this area however a magnetic low suggests the presence of a minor intrusive body or major dyke.

Fault No. 1 controls the Easterly extension of the orebody. The Fault has an eastern block up movement and the vertical dislocation appears to have been more than 500 feet. The fault was observed in some drill holes at a shallow depth, but drill hole information is not available to delineate it at the B and C lens horizons. The Fault has been largely inferred at these horizons and more accurate delineation is essential.

It is thought that a granite dyke has intruded along this fault and that this might be closely connected with the mineralising procedures.

c) Contact Alteration and Metasomatism

All previous attempts to correlate the drill core information failed due to the variety of rock types produced by contact alteration. On the basis of mineral-chemical considerations an imperfect, but rather useful, scheme of contact metamorphic facies has been worked out. This scheme from which the correlation has been carried out is set out in Table III.

Table 111 THE SCHEME OF CONTACT METAMORPHIC ROCK FACIES

UNALTERED ROCK	ALTERED ROCK FACIES - LOW TEMPERATURE	ALTERED ROCK FACIES - INTERMEDIATE TEMP.	ALTERED ROCK FACIES - HIGH TEMPERATURE	SKARN FACIES	ROCK NAME USED IN CORE LOGS
Volcanics			Actinolite and/or biotite hornfels		Volcanics, Ah, Bh
Shale-Siltstone	Spotted Shale	Biotite-Muscovite Hornfels	Biotite Hornfels		Shale, Spotted Shale Quartzite, Bmh, Bh etc.
Siltstone with calcareous beds		Biotite-Actinolite Hornfels	Biotite Hornfels and Pyroxene Hornfels		Bh, BAh, Ph, Bh/Ph, Ph/Bh, Ch, Ph/Bh/Ch, etc.
Impure Dolomitic Limestone	Marble and/or Actinolite (tremolite?) Hornfels	Marble and grossularite - diopside Hornfels	Grossularite hornfels and/or diopside-grossularite hornfels	Diopside-andradite skarn	Ph,Bh/Ph/Ch Ch/Ph, Ch, Pgh, etc.
Limestone			Marble	Andradite Skarn	Gph, Gh, Bh/Ch, Ch, etc.

3. Previous Work (Contd.)

(iv) Geology (Contd.)

c) Contact Alteration and Metasomatism (Contd.)

This facies scheme has not been verified by microscope petrological studies, but provides a scheme based on the alteration product of primary rock at varying temperatures.

Metasomatism has been generally in accordance with the classically documented systems, with the alteration of limestone and calcareous sediments by the introduction of silica, aluminium, iron and magnesium.

d) Mineralisation

The orebody is located with a sequence of calcareous and clastic sedimentary rocks, along and adjacent to an intrusive granite body. The orebody is largely conformable with the host rocks and is elongated in a North-South direction roughly parallel to the granite contact. It is closed off to the North and West by the granite and is cut off to the East by the No. 1 Fault. To the South the ore body has been delineated to Line 9,600N.

The host rocks have undergone differential contact metamorphism and metasomatic alteration. Due to the latter the limestone beds were altered to a skarn into which the tungsten mineralisation was introduced contemporarily by the metasomatic procedure. The mineralising solutions probably invaded the host rock through the No. 1 Fault adjacent to which high grade mineralisation has been recorded.

The orebody consists of three quite separate and distinct zones of mineralisation, however, the total grade of each ore lens is almost identical, strongly suggesting a common source for all the mineralising fluids and a similar environment of ore deposition.

(i) The upper or A Lens occurs in the outer rim of partly altered, distinctly stylolitic limestone lens.

On the Line 400E, between Lines 9,800N and 10,200N, a highly mineralised strip (from 1.27 to 2.65% WO_3) has developed and this has gradually separated into two main and several minor lenses towards the Eastern extremity. The grade distribution indicated that the mineralising solutions entered into the limy horizon along the highly mineralised zone and spread Easterly and

3. Previous Work (Contd.)

(iv) Geology (Contd.)

d) Mineralisation

Southerly around the limestone lens resulting in a decreasing of the grade towards the extremities.

To the North, A lens reaches the surface forming sub-outcrop below the Quaternary formations.

Further extension of A lens mineralisation is expected to the South of Line 9,600N, however, the general trend of grade distribution suggests that this extension may soon wedge out to the South.

(ii) B Lens occurs along the upper marginal zone of an impure limestone. Tungsten has been introduced along the junction between the limestone and the volcanics where fracturing, probably caused by the intrusion, has been more intense due to the different competency of the two units.

Both grade and thickness distributions suggest that the mineralising solution entered from the No. 1 Fault resulting in rich mineralisation (1.02% to 2.14% WO_3) in the highly altered zone immediately adjacent to the Fault. The mineralisation probably extends from the Fault to the granite in the West. The mineralised horizon thins considerably at about Line 400E, South of Line 10,100, and there are some indications that it may wedge out completely in places.

The boundary of B lens mineralisation has not been established with sufficient reliability, and the boundaries to the North and West (against the granite) have been tentatively drawn. An Easterly extension is also plausible since the No. 1 Fault has been inferred at this horizon.

Further extension of B lens mineralisation is expected South of Line 9,600N.

(iii) C Lens mineralisation occurs as two major horizons in a highly altered fragmental limestone which was more amenable to metasomatic alteration due to primary permeability. C lens mineralisation can be delineated only on a tentative basis, since much of the boundary has been inferred. The boundary has been placed along the granite contact to the West and North and along the No. 1 Fault in the East.

3. Previous Work (Contd.)

(iv) Geology (Contd.)

d) Mineralisation (Contd.)

Grade distribution shows that the course of mineralisation was common with that of B lens, with high grade mineralisation (up to 4.6% WO_3) occurring along the No. 1 Fault.

The mineralisation seems to wedge out to the South, but since the location of No. 1 Fault is not known at the depth of C lens, the zone adjacent to this fault might be mineralised at and below the -300 foot level.

The bulk of scheelite occurs as fine disseminated grains in the fine skarn and pyroxene hornfels, and as disseminated and large patchy grains in the coarse andradite skarn. A small percentage occurs as disseminated and patchy scheelite in some granite and quartz veins, as well as in joints.

Small amounts of sulphide minerals are present throughout the mineralised sequence. A high concentration (0.38% Mo) of Molybdenite mineralisation was intersected by D.D.H. 228 adjacent to the No. 1 Fault.

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4. ORE RESERVE

The ore reserve within the No. 3 Orebody has been re-calculated. The area included in this casting is bounded by the granite to the North and West, the No. 1 Fault in the East and is terminated at Line 9,600 in the South. This casting is fixed as at 29th July, 1969, (i.e. the close of Period 1 of the 1969/1970 year).

(i) Grade Calculation

The following methods were used in the calculation of the grade.

1. Each lens was considered as a total entity. The distribution of drill holes is such that insufficient data is available to enable grades to be calculated on a section by section basis.
2. The minimum grade cut off applied was 0.25% WO_3. All sections of assay less than 0.25% WO_3 were excluded from the calculation except where lower grade portions formed part of the normal population within areas of above cut off grade.
3. All data was treated on an assay-foot basis.
4. Data was initially grouped in natural arithmetic increments of 0.05% WO_3. Histograms were drawn of this grouped data to determine the type of distribution present. These histograms indicate that the distribution closely approximates to the log-normal type. See plots G3 - 20, G3 - 21 and G3 - 22 appended.
5. All data was therefore regrouped on a log-normal basis and the grades calculated in accordance with the methods of Sichel. A mean grade was calculated and the lower 90% confidence limit determined.
6. Small discontinuous lenses of above cut off grade, but of no defined extent, were excluded from the calculation.

(ii) Tonnage Calculation

Tonnages were calculated on a sectional basis. A cross check was made by calculation on both cross sections and long sections. The sections are spaced at 100 feet intervals. The areas of ore on each section were measured with a planimeter, with repeated measurements being made and averaged to reduce error.

The tonnage was then calculated on the basis of -

$$\frac{(a + 6b + c) \times f \times i}{8p}$$

4. Ore Reserve (Contd.)

(ii) Tonnage Calculation (Contd.)

where
- a Planimeter reading on northern section
- b Planimeter reading on prime section
- c Planimeter reading on southern section
- f Planimeter factor
- i Area of influence prime section
- p Density factor ($ft.^3$ per ton)

The density factor used was 11.5 cubic feet per ton. This figure was supplied by the Mining Section of King Island Scheelite (1947) Limited as the figure that has been traditionally used. Although no recent investigation has been made to test the validity of this figure, experience has shown it to be generally applicable in determining ore mined in comparison with mill throughput etc.

(iii) Discussion

A previous ore reserve calculation was made by A. Jannink of P. Anthony and Associates in March and April, 1969. This calculation is quite well documented and although plans are not available all working sheets and calculations are on file. The calculation was carried out on a section by section basis, using straight line projections between points of information. A grade cut off of 0.25% WO_3 was applied to A Lens ore and of 0.5% WO_3 to B and C Lens ore.

The area over which the calculation applied would seem to have been variable for each lens as follows:-

A Lens - Sections 400E to 800E, for levels +400 feet to Sea Level

B Lens - Sections 200E to 800E, for levels +200 feet to -300 feet

C Lens - Sections 400E to 600E, for levels -100 feet to -500 feet.

This area is very different to the area covered by the present calculation, and although grades are only slightly different tonnages are changed appreciably.

The method of averaging to determine ore intersections was extremely loose and variable in the previous calculation. Many barren areas were included between higher grade zones if the overall average was above cut off. In this calculation individual assays have been considered in determining the cut off and barren lenses excluded. It is probable that some of these lenses would have to be included as dilution in considering a mining plan but it is felt that this aspect is outside the provence of this report.

4. Ore Reserve (Contd.)

(iii) Discussion (Contd.)

Included in the reserve is ore of all three catagories, measured, indicated and inferred. The distribution of drilling is such that there is an over-abundance of data in some areas whilst others are almost devoid of information. Interpretation has been made from cross sections to long sections and vice-versa. Where information has been lacking ore has been inferred on the basis of geology and our knowledge of the host rocks and ore environment. This interpolation was by plotting zones of probable mineralisation which were then refined to inferred ore by comparison with distribution of assay values over the same mineralised horizon elsewhere. Sections G3 - 8 and G3 - 16 are included to show the relationship between ore and mineralisation.

Table IV — No. 3 OREBODY - ORE RESERVE

Lens	Tonnage	Mean Grade % WO_3	Lower 90% Confidence Grade % WO_3
A	321,000	1.136	1.08
B	837,000	1.130	1.09
C	1,117,000	1.131	1.00
All Lenses	2,275,000	1.13%	

NOTES

1. A lens ore may be classified largely as measured ore with a small percentage as indicated.
2. B and C Lens ore is less than 50% measured and indicated and is inferred on the basis of geology and our knowledge of the host rocks and ore environment.
3. The tonnage figures quoted are those calculated from the cross sections. A check calculation on the long sections gave differences of -

A Lens	up	3.7%
B Lens	down	0.7%
C Lens	down	0.2%

5. DRILLING PROPOSAL

A drilling programme is proposed to obtain additional grade and geological information in the area of No. 3 Orebody. A separate programme is also proposed to test the potential and delineate the continuation of the Orebody to the South of Line 9,600N.

(i) Ore Blocking Holes

Thirteen vertical holes for a total of 9,200 feet are proposed in the area of No. 3 Orebody. The holes are to be sited on the grid junctions and bottomed in the granite.

Five proposed holes are to be located on previous drill sites, four of which were established for information about shallow targets. The fifth was abandoned. The successful re-opening of the shallow holes would reduce the planned footage by 1386 feet.

The proposed holes are as follows:-

Section Line 100E

One hole is proposed to test possible extension of B Lens horizon which has not yet been adequately delineated in this area.

1. Co-Ordinates: 100E, 10,400N
   Depth: 300 Feet
   Target: B Lens, between 200 and 250 feet (?)

Section Line 200E

Two drill holes are proposed to obtain information about B Lens.

2. Co-Ordinates: 200E, 10,200N
   Depth: 350 Feet
   Target: B Lens, between 260 and 280 feet (?)
3. Co-Ordinates: 200E, 10,500N
   Depth: 300 Feet
   Target: B Lens, between 200 and 240 feet (?)

Section Line 300E

Two drill holes are proposed to be re-opened (D.D.H. 236, abandoned at 252 feet, and D.D.H. 244, stopped at 300 feet) and drill on to 700 feet and 650 feet respectively to test C Lens mineralisation. The holes may also prove the presence of B lens mineralisation.

4. Co-Ordinates: 300E, 9,800N (abandoned drill site)
   Depth: 700 Feet
   Target: C Lens, between 450 and 530 feet (?)

5. Drilling Proposal (Contd.)

5. Co-Ordinates: 300E, 10,000N (re-opening)
Depth: 650 Feet
Target: C Lens, between 530 and 610 feet

Section Line 400E

No drill hole is proposed on this Line.

Section Line 500E

One drill hole is proposed to test B and C Lens horizons and two drill holes are proposed to be re-opened (D.D.H. 237 stopped at 303 feet and D.D.H. 241, stopped at 190 feet) and drill on to 850 feet for information about B and C Lens horizons.

6. Co-Ordinates: 500E, 9,800N (re-opening)
Depth: 850 Feet
Target: B Lens, between 480 feet and 500 feet
C Lens, between 650 feet and 700 feet

7. Co-Ordinates: 500E, 10,000N (re-opening)
Depth: 850 Feet
Target: B Lens, between 420 feet and 440 feet
C Lens, between 600 feet and 680 feet

8. Co-Ordinates: 500E, 10,400N
Depth: 600 Feet
Target: B Lens, between 250 feet and 350 feet

Section Line 600E

Two drill holes are proposed to test B and C Lens horizons. One drill hole is expected to give information about the location of No. 1 Fault.

9. Co-Ordinates: 600E, 9,800N
Depth: 900 Feet
Target: B Lens between 480 feet and 500 feet
C Lens between 660 feet and 730 feet

10. Co-Ordinates: 600E, 10,200N
Depth: 850 Feet
Target: B Lens, between 440 feet and 460 feet (?)
C Lens, between 550 feet and 560 feet (?)

Section Line 700E

One drill hole is proposed to test possible extension of C Lens and to define No. 1 Fault.
It is also proposed to re-open D.D.H. 269 and drill on from 593 feet to 950 feet to test C Lens mineralisation.

11. Co-Ordinates: 700E, 9,800N (re-opening)
Depth: 950 Feet
Target: C Lens, between 670 feet and 750 feet

12. Co-Ordinates: 700E, 10,000N
Depth: 900 Feet
Target: C Lens at 700 feet (?)

5. Drilling Proposal (Contd.)

Section Line 800E

One drill hole is proposed to test B and C Lens mineralisation as well as to locate No. 1 Fault.

13. Co-Ordinates: 800E, 9,600N
Depth: 1000 Feet
Target: B Lens, between 510 and 610 feet
C Lens, between 790 and 830 feet

(ii) Exploratory Drilling to South of Line 9,600N

Further diamond drilling is required to delineate the Southern extension of -

A Lens mineralisation below +100 foot level
B Lens mineralisation below -200 foot level and
C Lens mineralisation below -300 foot level.

It is proposed that this drilling be on sections 200E, 400E, 600E, 800E and 1000E sited on the junctions of lines 9,400N and 9,200N. If the potential area defined in the 200 feet by 200 feet grid warrants it, the intermediate Easterly co-ordinate junctions will be filled in with additional holes forming a 100 feet by 200 feet grid.

This drilling will have to be on a hole by hole basis as our present knowledge of the structure of this area, particularly in reference to faulting and lensing out of units, is such that no comprehensive programme can be developed. The result of D.D.H. 266, in progress at present, and the forthcoming definition of No. 1 Fault will determine the final extremities of the area to be covered with exploratory drilling.

It is considered that this programme could amount up to 12 vertical holes, of average depth of 1000 feet, for a total footage of 12,000 feet.

5. Drilling Proposal (Contd.)

(iii) Recommendation

It is recommended that a diamond drilling programme of 25 holes for a total of 21,200 feet be undertaken in two phases, as follows:-

1. 13 ore blocking holes for 9,200 feet be put down in the area of the No. 3 Orebody. This footage may be reduced to 7,814 feet by the successful re-opening of four shallow drill holes.
2. 12 exploratory holes for 12,000 feet be undertaken to test the potential of, and delineate, the Southern extension of No. 3 Orebody.

Table V

ORE BLOCKING HOLES

D.D.H. No.	Co-Ordinates	Depth	Target		Possible Position of Granite	Note
			B Lens	C Lens		
1	100E, 10,400N	300'	200' - 250' (?)	-	At top or at 270 feet	
2	200E, 10,200N	350'	260' - 280' (?)	-	At top or at 320 feet	
3	200E, 10,400N	300'	200' - 240' (?)	-	At top or at 270 feet	
4	300E, 9,800N	700'	?	450' - 530' (?)	530' or 660'	Abandoned
5	300E, 10,000N	650'	?	530' - 610' (?)	500' or 620'	Re-Opening
6	500E, 9,800N	850'	480' - 500'	650' - 700'	780'	Re-Opening
7	500E, 10,000N	850'	420' - 440'	600' - 680'	780'	Re-Opening
8	500E, 10,400N	600'	250' - 350' (?)	480' - 560' (?)	?	Fault Zone
9	600E, 9,800N	900'	480' - 500'	660' - 730'	860'	
10	600E, 10,200N	850'	440' - 460' (?)	550' - 560' (?)	830' (?)	Fault Zone
11	700E, 9,800N	950'	-	670' - 750'	900'	Re-Opening
12	700E, 10,000N	900'	?	700' (?)	870' (?)	Fault Zone
13	800E, 9,600N	1000'	510' - 610'	790' - 830'	940'	Fault Zone

TOTAL FOOTAGE 9200 FEET

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023

FAULT AT 300'
FAULT AT SEA LEVEL
FAULT AT -300'

DDH 248
DDH 240
DDH 238
DDH 254
DDH 252
DDH 243
DDH 226
DDH 264
DDH 249
DDH 247
DDH 268
DDH 244
DDH 234
DDH 241
DDH 227
DDH 265
DDH 270
DDH 236
DDH 229
DDH 237
DDH 222
DDH 269
DDH 225
DDH 257
DDH 231
DDH 253A
DDH 228
DDH 246
DDH 223
DDH 255
DDH 230
DDH 238
DDH 230A
DDH 266
(in progress)
DDH 221

LEGEND

- DIAMOND DRILL HOLE WITHOUT ORE INTERSECTION.
- DIAMOND DRILL HOLE WITH 'A' LENS INTERSECTION.
- " " " " 'B' " "
- " " " " 'C' " "
- " " " " 'A','B' " "
- " " " " 'B','C' " "
- " " " " 'A','B','C' " "
- ABANDONED DRILL HOLE.
- UNSURVEYED, DIPPING DIAMOND DRILL HOLE.
- PROPOSED DIAMOND DRILL HOLE.

ORE OUTLINES. (largly inferred.)

- 'A' LENS
- 'B' LENS
- 'C' LENS

5 cm

GEOPEKO LIMITED		SCALE: 1 in - 50 ft
Nº3 OREBODY ORE OUTLINES AND DRILL HOLE LOCATIONS	068024	DATE: JULY '69
	DRAWN: L.S., P.LeM.	G3-1
	TRACED: D.M.W.	
	CHECKED: P.L.M.	

024

VOLCANICS

BIOTITE - MUSCOVITE HORNFELS, SPOTTED SHALE

BIOTITE HORNFELS

BIOTITE HORNFELS & PYROXENE HORNFELS (BANDED)

PYROXENE HORNFELS

LIMESTONE, MARBLE

ANDRADITE SKARN, ANDRADITE DIOPSIDE SKARN

ALTERED FRAGMENTAL LIMESTONE, DIOPSIDE-ANDRADITE SKARN, DIOPSIDE-GROSSULARITE HORNFELS

BEDDED SERIES
BIOTITE HORNFELS, DIOPSIDE HORNFELS, MARBLE, ETC.,

GRANITE, APLITE

QUARTZITE, SLATE, SHALE, ETC

TUNGSTEN ORE

LOW GRADE TUNGSTEN ORE

BOUNDARY

INFERRED BOUNDARY

BOUNDARY OF ORE

POSSIBLE BOUNDARY OF ORE

INFERRED FAULT

068025

GEOPEKO LTD

N° 3 OREBODY
LEGEND FOR LONG AND CROSS SECTIONS

Date JULY '69

Drawn: A.M.T

Traced:

Checked P.Lem.

G 3 - 23

025

400

300

200

100

SEA LEVEL

-100

200E

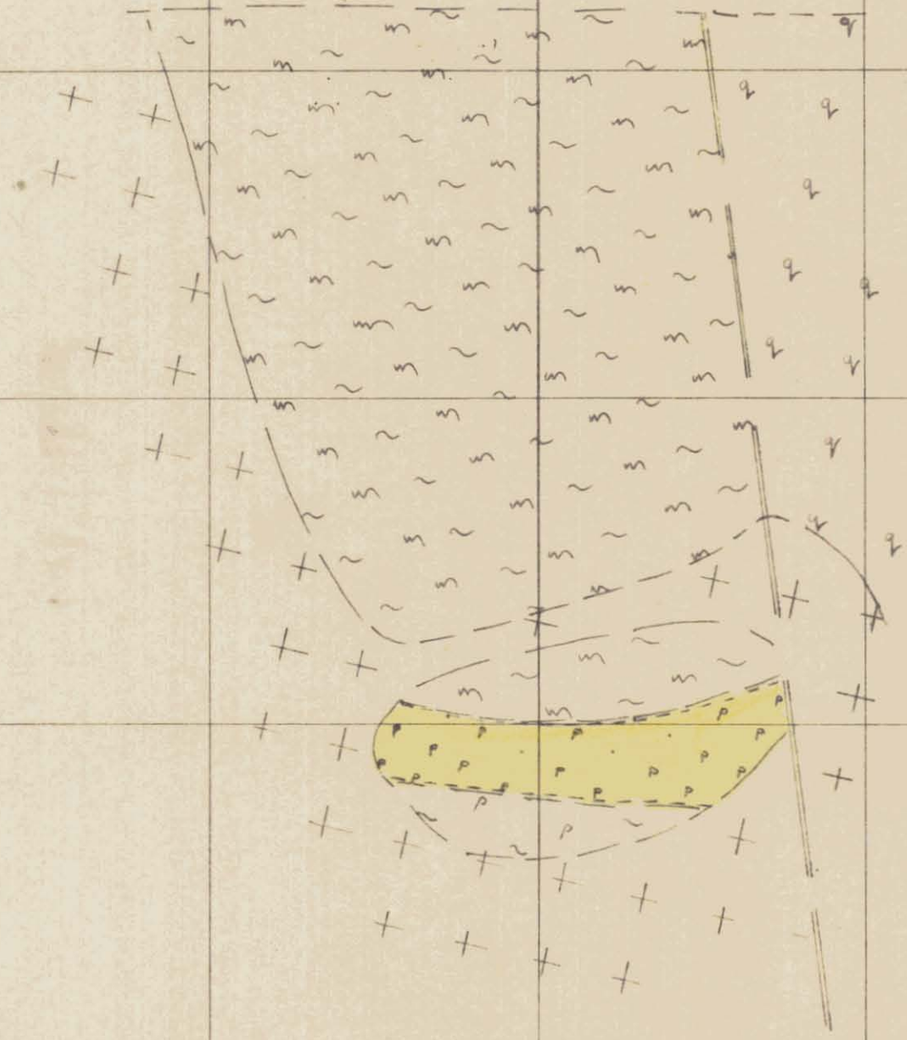
300E

400E

500E

600E

700E



5 cm

GEOPEKO LTD.

INVESTIGATOR 1

GEOLOGICAL LONG SECTION

10500N

068026

SCALE: 1in : 50ft

DATE: JULY '69

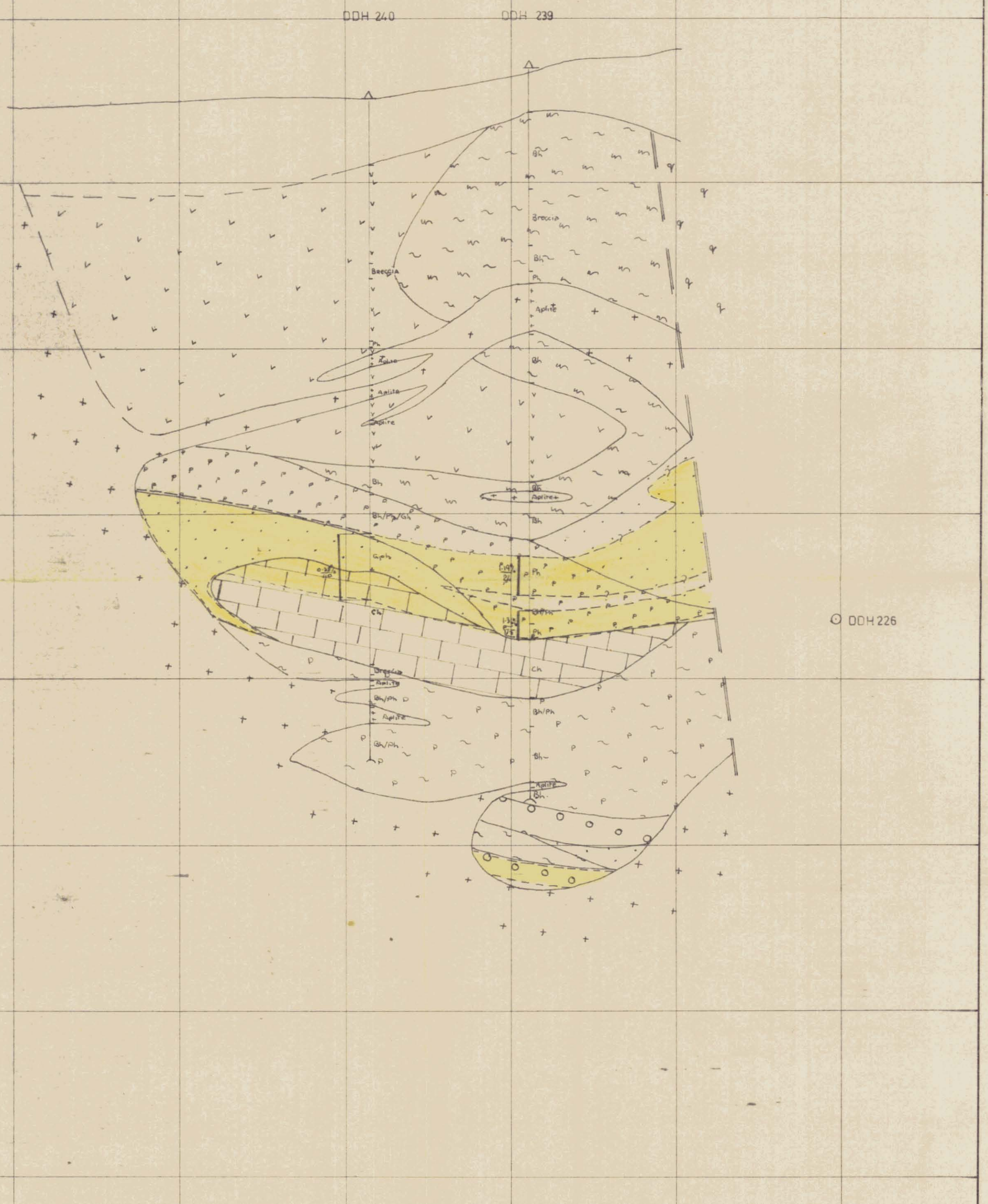
DRAWN: L.SZABO

TRACED: D.M.W.

CHECKED: P.LeM.

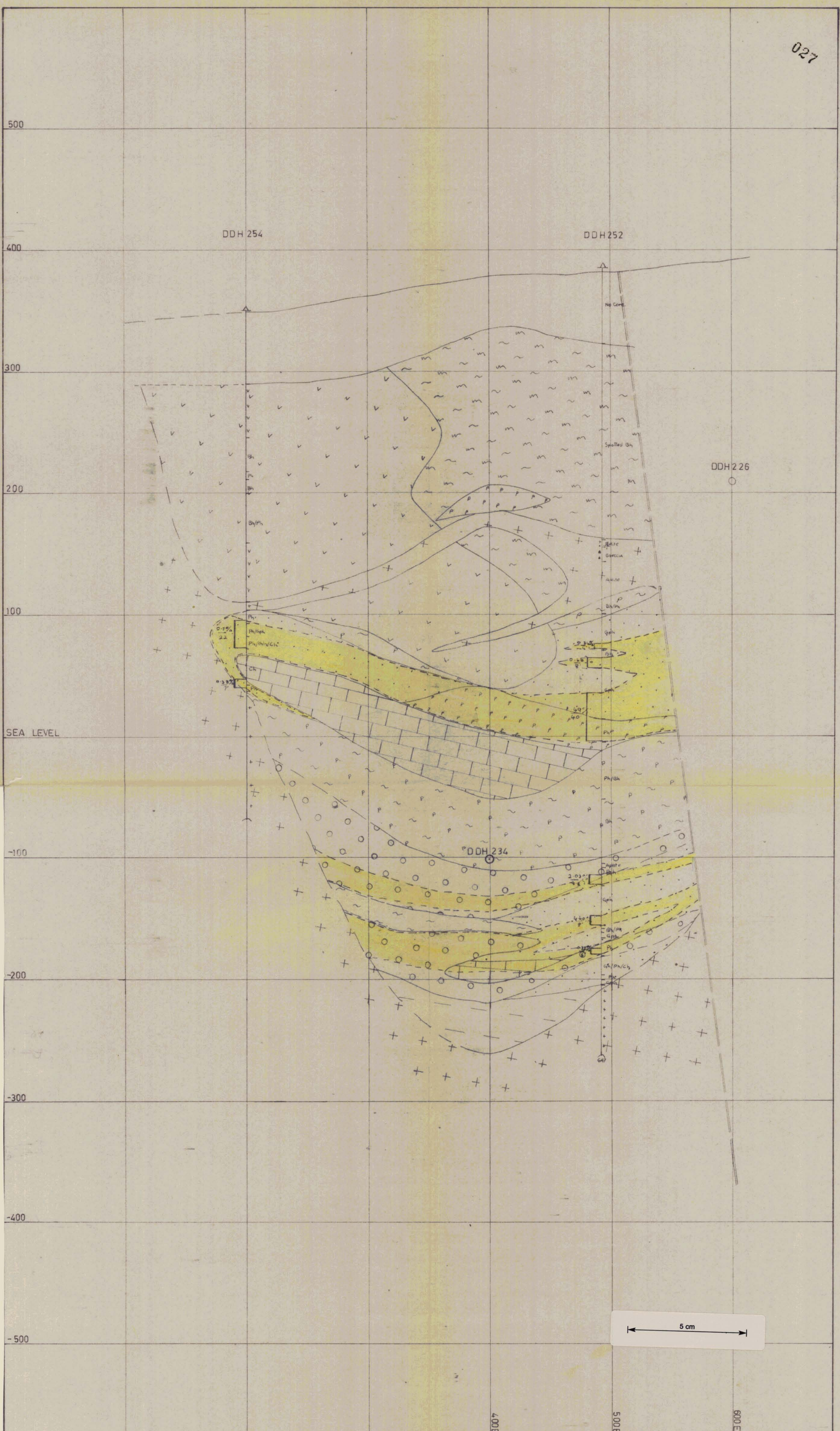
G3-2

026



GEOPEKO LTD		SCALE: 1in = 50ft
INVESTIGATOR 1	068027	DATE: JULY '69
GEOLOGICAL CROSS SECTION	DRAWN: L. SZABO	G3 - 3
10 400 N	TRACED: D.M.W.	
	CHECKED: P.Lem.	

027



GEOPEKO LTD.

INVESTIGATOR 1

GEOLOGICAL CROSS SECTION

10300N

068028

DRAWN: L.SZABO

TRACED: D.M.W.

CHECKED: P. LeM.

SCALE: 1in - 50ft

DATE: JULY '69

G 3 - 4

028

200E 300E 400E 500E 600E 700E 800E

400

SURFACE

DDH 243
(P 2 N)

No Core

BEDROCK

300

200

BRECCIA

100

BROKEN

Bh/Ph

Ch/Gr

Bh/Ph

Ph

SEA LEVEL

Gr
Gab
Breccia
Br

-100

-200

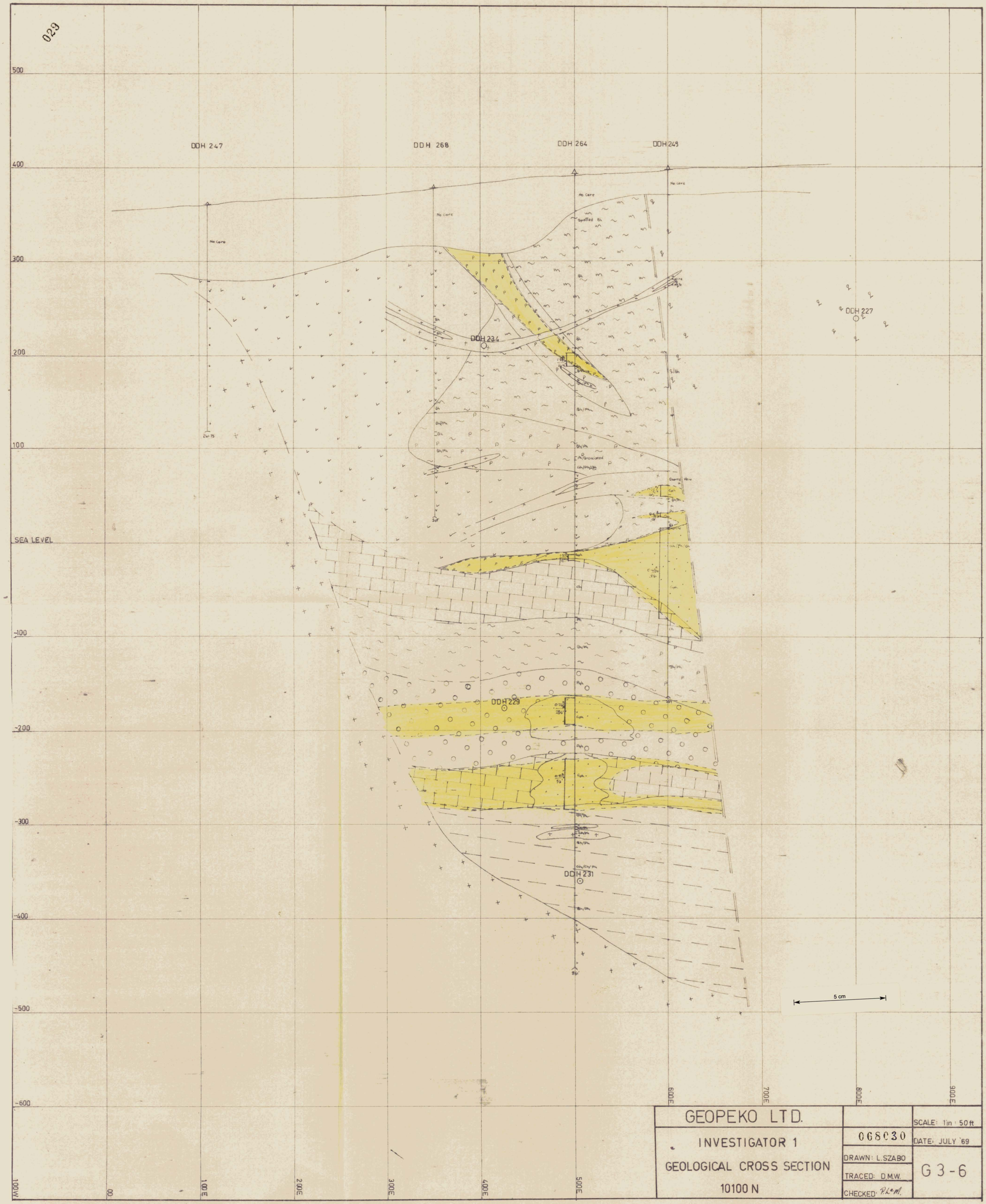
-300

-400

DDH 227

5 cm

GEOPEKO LTD		Scale: 1in 50ft
INVESTIGATOR 1	068029	Date: JULY '69
GEOLOGICAL CROSS SECTION	Drawn: L Szabo	G3-5
10200N	Traced: A.M.T	
	Checked: P. LeM.	


029
500
400
300
200
100
SEA LEVEL
-100
-200
-300
-400
-500
-600
DDH 247
DDH 268
DDH 264
DDH 249
DDH 234
DDH 227
DDH 229
DDH 231
No Core
Spotted Bh
Aplite
Quartz Vein
Ph/Brecciated
Gh/Ph/Bh
Bh/Ph
100W
00
100E
200E
300E
400E
500E
600E
700E
800E
900E
5 cm
GEOPEKO LTD.
INVESTIGATOR 1
GEOLOGICAL CROSS SECTION
10100 N
068030
DRAWN: L.SZABO
TRACED: D.M.W.
CHECKED: P.LeM.
SCALE: 1in : 50ft
DATE: JULY '69
G 3-6

030

100W 0 100E 200E 300E 400E 500E 600E 700E 800E 900E

400 300 200 100 SEA LEVEL -100 -200 -300 -400 -500

DDH 244 (P 2 N)

DDH 241 (P 3 S)

DDH 229

DDH 228

DDH 231

No Core

No Core

Core Recovery 47%

Ch/Ph/Bp

Ph/Bp

Ch/Ph/Ph

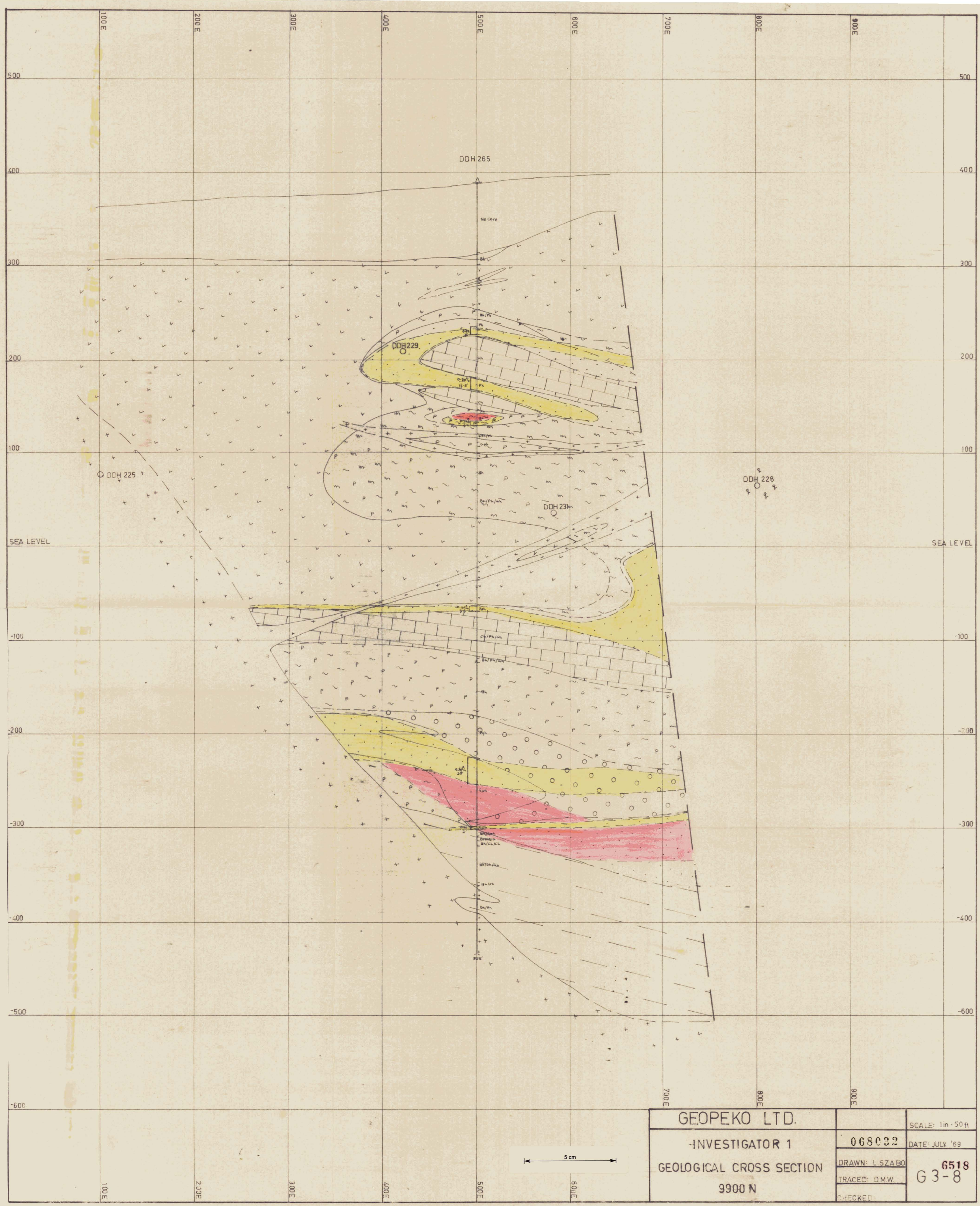
Ph/Bn

Bn

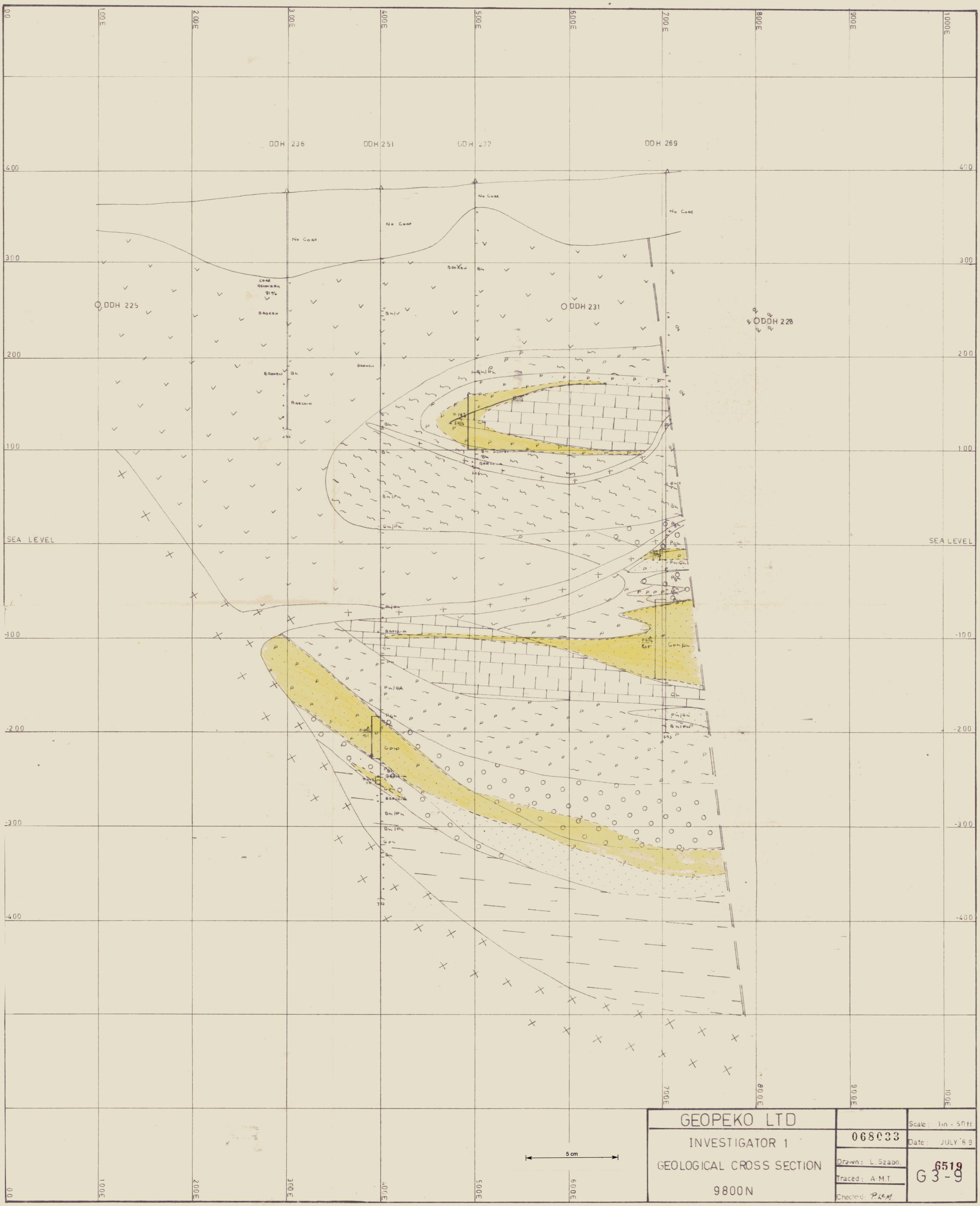
0.63% 32.5

5 cm

GEOPEKO LTD		Scale: 1in - 50ft
INVESTIGATOR 1	068031	Date: JUNE '69
GEOLOGICAL CROSS SECTION	Drawn: L. Szabo	G3-7
10,000N	Traced: A.M.T.	
	Checked: P.Le M.	



100 E
200 E
300 E
400 E
500 E
600 E
700 E
800 E
900 E
500
400
300
200
100
SEA LEVEL
-100
-200
-300
-400
-500
-600
DDH 265
No core
DDH 229
DDH 225
DDH 231
DDH 228
5 cm
GEOPEKO LTD.
INVESTIGATOR 1
GEOLOGICAL CROSS SECTION
9900 N
068032
SCALE: 1 in : 50 ft
DATE: JULY '69
DRAWN: L. SZABO
TRACED: D.M.W.
CHECKED:
6518
G3-8



DDH 236
DDH 251
DDH 237
DDH 269
DDH 225
DDH 231
DDH 228
No Core
Core Recovery 81%
Broken
Broken Bh
Breccia
Bh/v
Bh/Ph
Gh/Ph
Ch
Breccia
Ph/Gh
Ph/BR
Gpw
Pgh
Ph.Ch
Gon Ph
Bh/Ph
Gph
0·18%
59/5
0·61%
45'
SEA LEVEL
400
300
200
100
-100
-200
-300
-400
00
100E
200E
300E
400E
500E
600E
700E
800E
900E
1000E
5 cm
GEOPEKO LTD
INVESTIGATOR 1
GEOLOGICAL CROSS SECTION
9800N
068033
Drawn: L. Szabo.
Traced: A.M.T.
Checked: P.LeM.
Scale: 1in - 50 ft
Date: JULY '69
6519
G 3 - 9

200E 300E 400E 500E 600E 700E 800E

DDH 253A

400 300 200 100 SEA LEVEL -100 -200 -300 -400

No Core

Bm

Bh

Bh/Ph

Ph

Ch

Breccia

Gh/Ph

PhGhCh

Ch/Gh/Ph

Aplite

Gph

Pgh

Bh/Ph/Gh/Ch

Bh/Ph/Ch/Gh

5 cm

GEOPEKO LTD

INVESTIGATOR 1

GEOLOGICAL CROSS SECTION

9700N

068034

Drawn: L. Szabo.

Traced: A.M.T.

Checked: P.L.M.

Scale: 1 in. - 50 ft

Date. JULY '69

G 3-10

6520

GEOPEKO LTD		Scale: 1in 50ft
INVESTIGATOR 1	068035	Date: JULY '69
GEOLOGICAL CROSS SECTION	Drawn: L. Szabo	G3 - 11
9600N	Traced: A.M.T.	6521
	Checked: P.LeM.	

DDH 221

400

300

200

100

SEA LEVEL

-100

-200

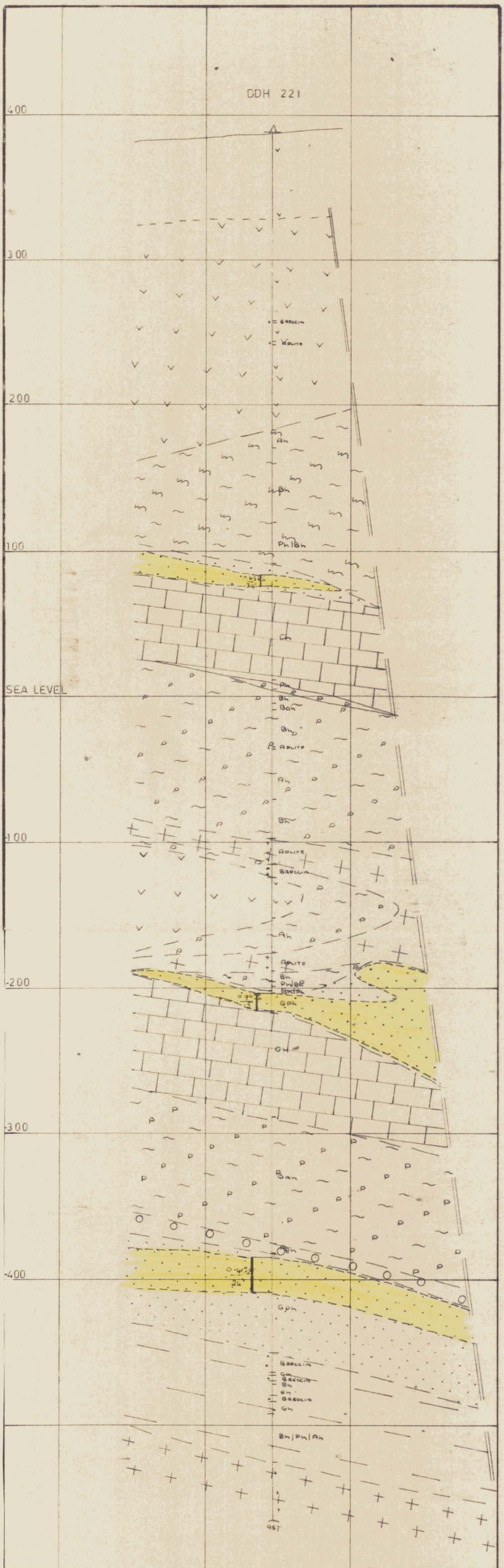
-300

-400

3009

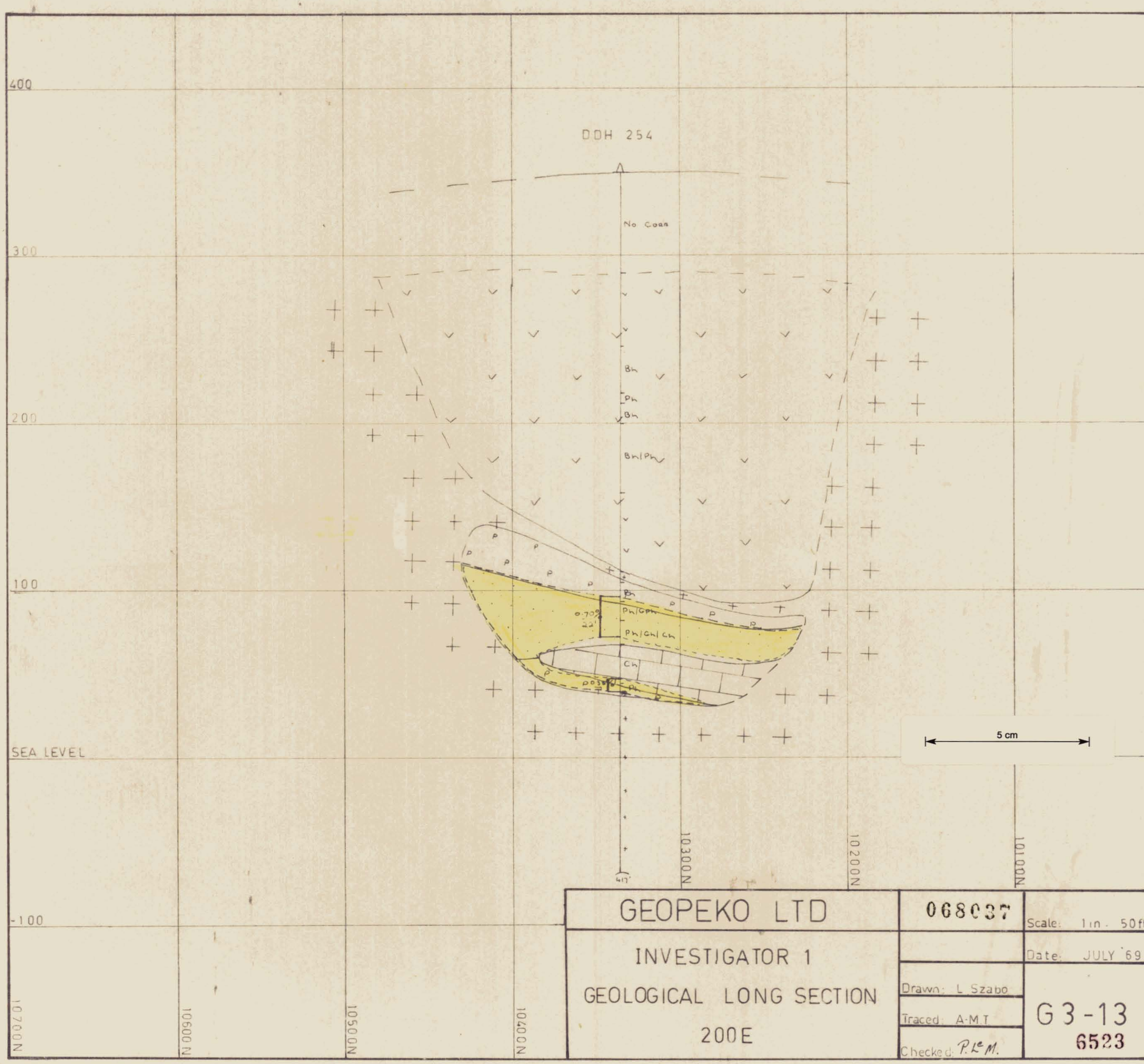
3007

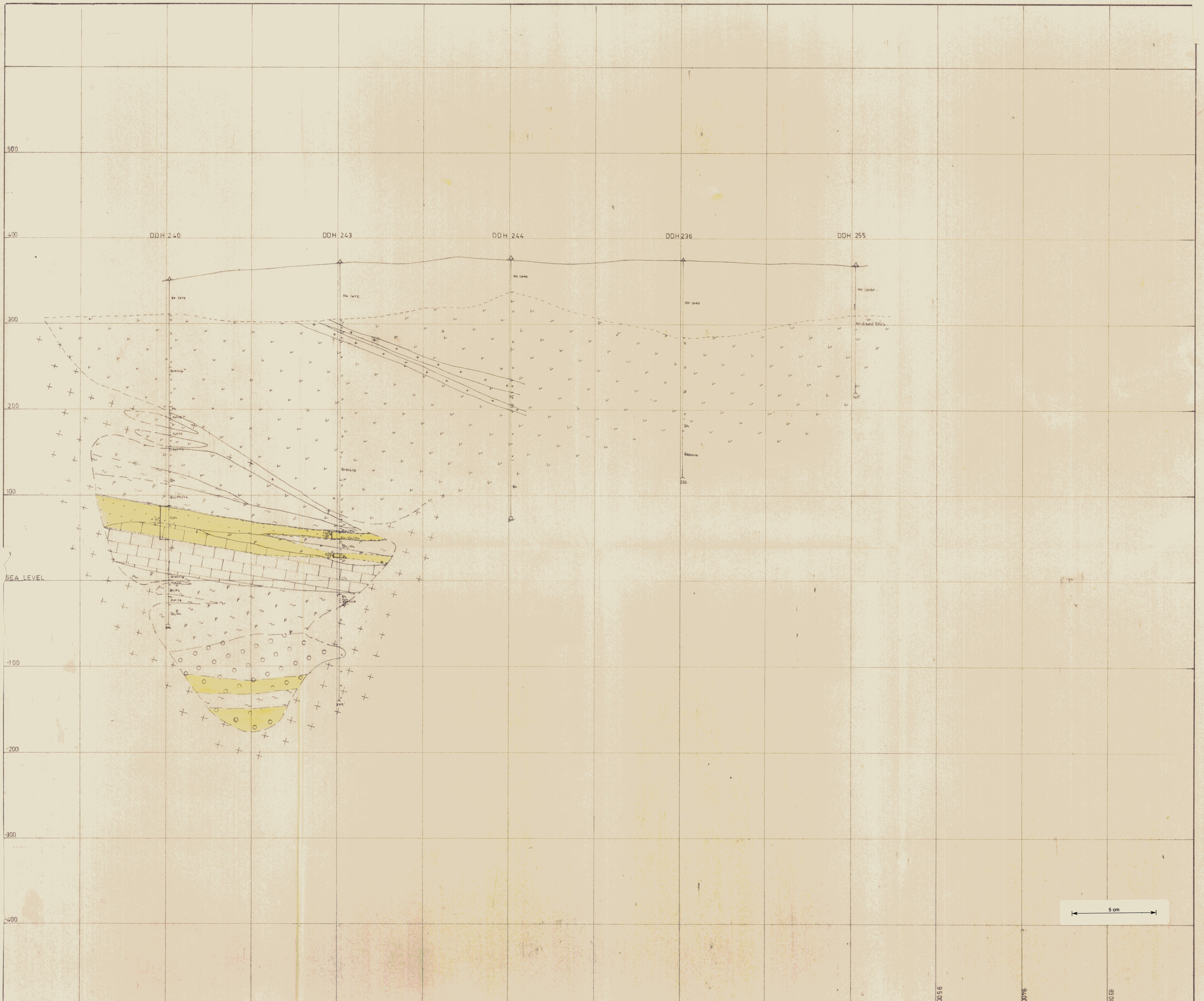
3008



5 cm

GEOPEKO LTD		Scale: 1in - 50ft
INVESTIGATOR 1	068036	Date: JULY '69
GEOLOGICAL CROSS SECTION	Drawn: L. Szabo.	G3 - 12
9500N	Traced: A.M.T.	6522
	Checked: P. LeM.	


400
300
200
100
SEA LEVEL
-100
DDH 254
No Core
Bh
Ph
Bh
Bh/Ph
Ph/GPh
Ph/Gh/Ch
Ch
0.70%
22'
Ph
5 cm
10700N
10600N
10500N
10400N
10300N
10200N
10100N
GEOPEKO LTD
068037
Scale: 1in. 50ft
Date: JULY '69
INVESTIGATOR 1
GEOLOGICAL LONG SECTION
200E
Drawn: L. Szabo
Traced: A.M.T.
Checked: P. LeM.
G3-13
6523



GEOPEKO LTD.

INVESTIGATOR 1

GEOLOGICAL CROSS SECTION

300E

068038

SCALE: 1in : 50ft

DATE: JULY '69

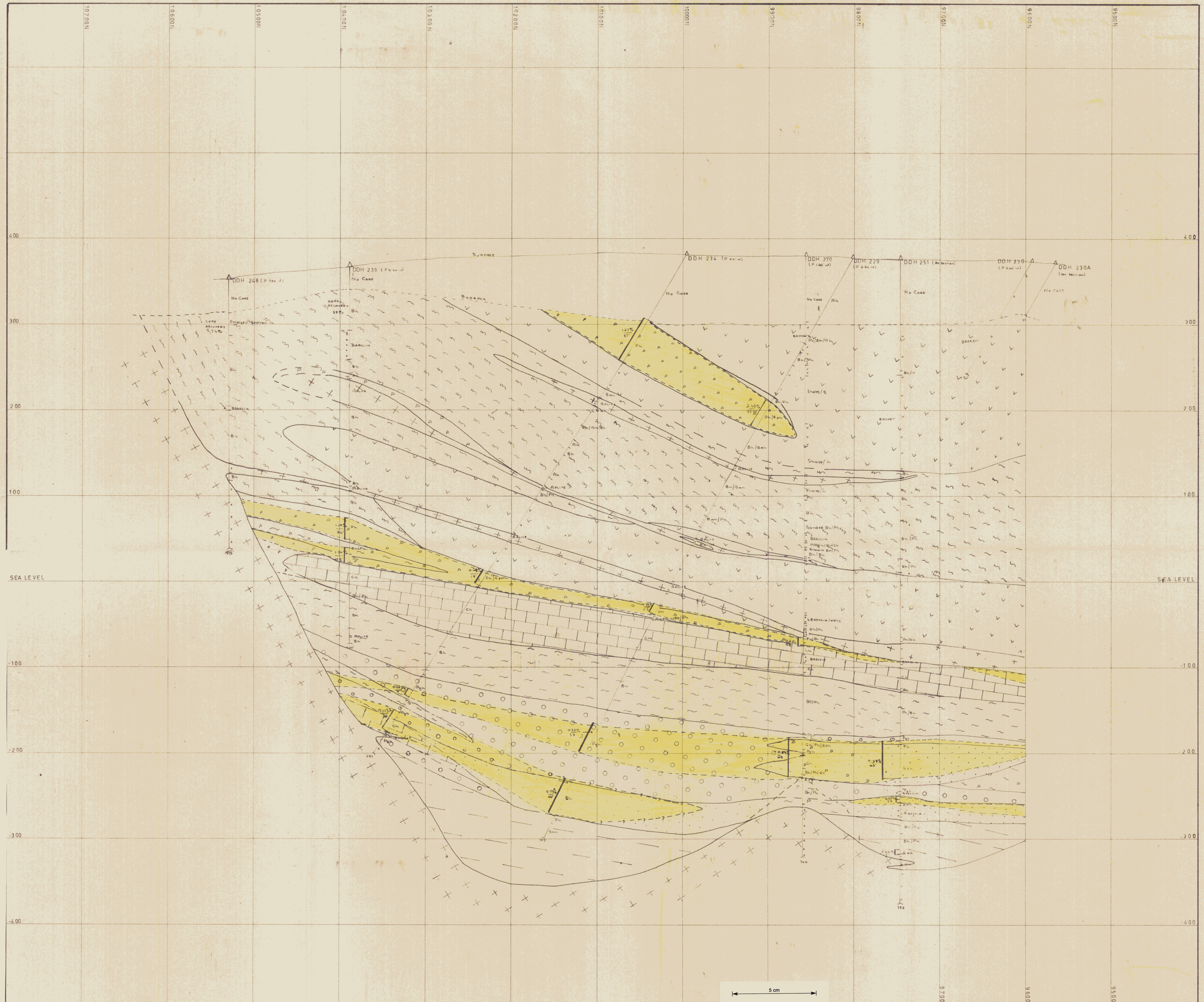
DRAWN: L.SZABO.

TRACED: D.M.W.

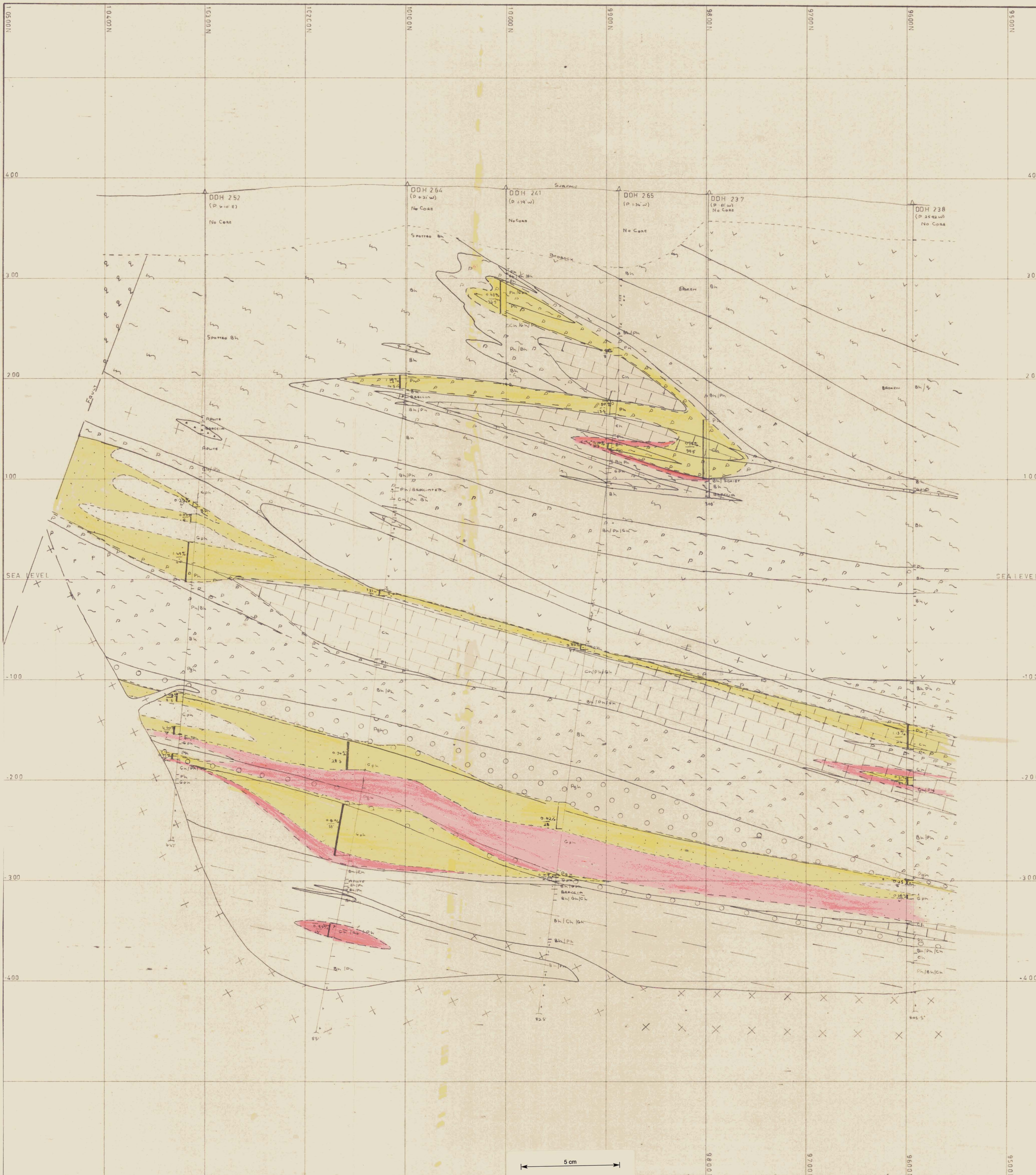
CHECKED: P. Le M.

G3-14

6524



GEOPEKO LTD		Scale: 1in 50ft
INVESTIGATOR 1	068039	Date: JULY '69
GEOLOGICAL LONG SECTION	Drawn: L Szabo	G3-15
400E	Traced: A.M.T.	6525
	Checked: P.LeM.	



GEOPEKO LTD

INVESTIGATOR 1

GEOLOGICAL LONG SECTION

500 E

068040

Drawn: L. Szabo

Traced: A.M.T.

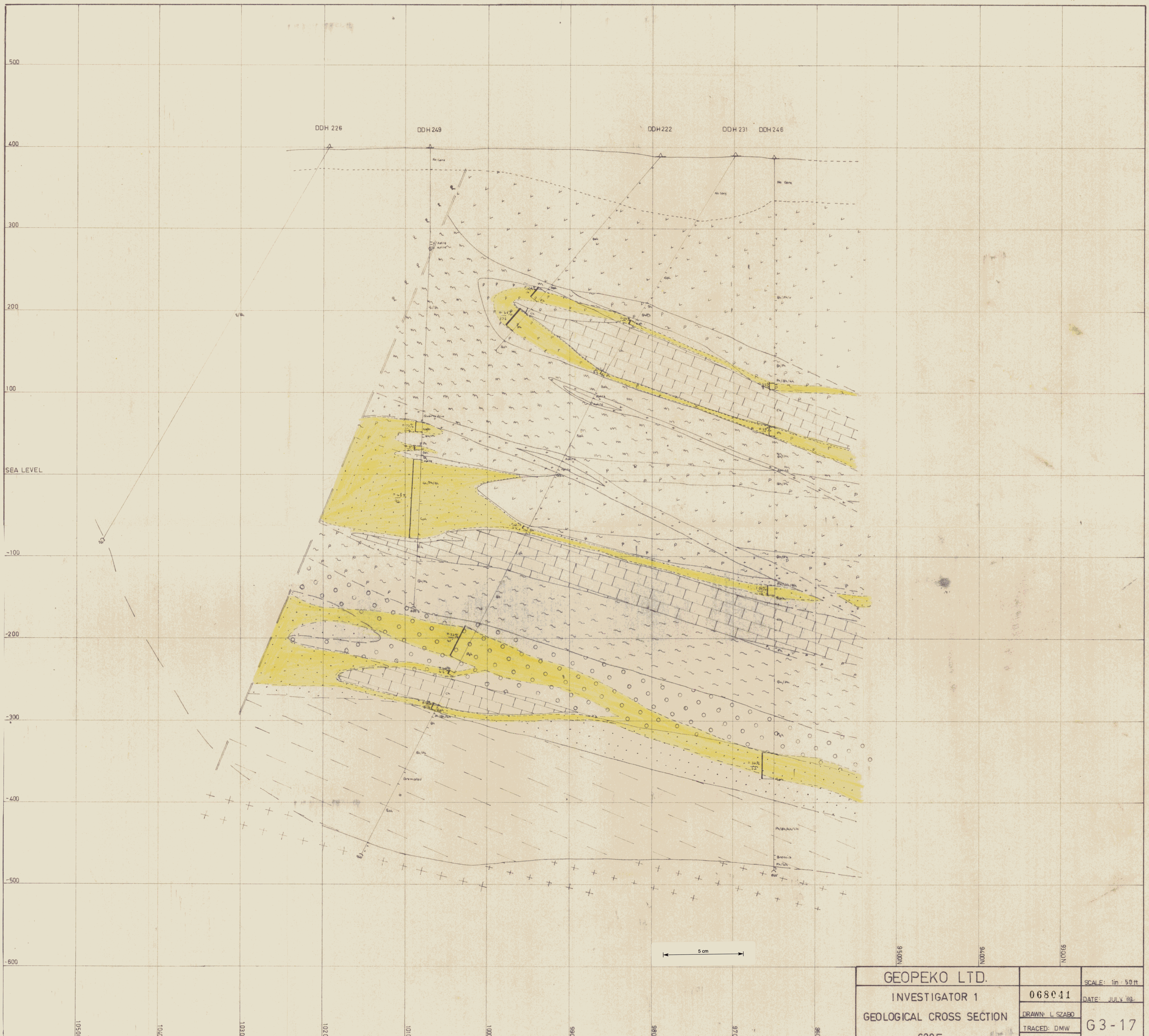
Checked: P.L.M.

Scale: 1in = 50ft

Date: JULY '69

G 3 - 16

6526



GEOPEKO LTD.

INVESTIGATOR 1

GEOLOGICAL CROSS SECTION

600E

068041

DRAWN: L. SZABO

TRACED: DMW

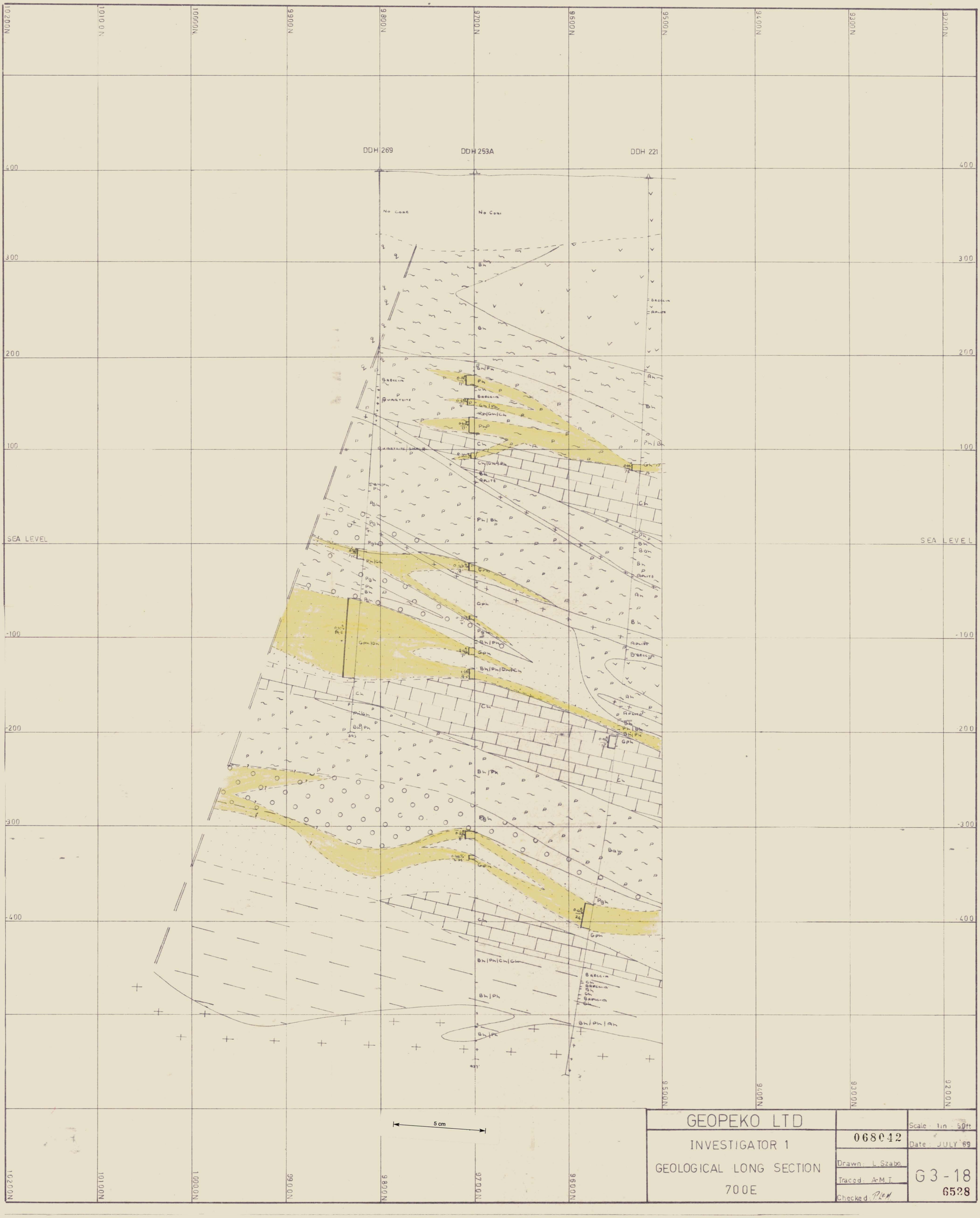
CHECKED: P.L.M.

SCALE: 1in : 50ft

DATE: JULY '69

G3-17

6527



GEOPEKO LTD		Scale: 1in = 50ft
INVESTIGATOR 1	068042	Date: JULY '69
GEOLOGICAL LONG SECTION	Drawn: L. Szabo	G 3 - 18
700E	Traced: A.M.T.	6528
	Checked: PLH	

DDH 227

DDH 228

400

300

200

100

SEA LEVEL

-100

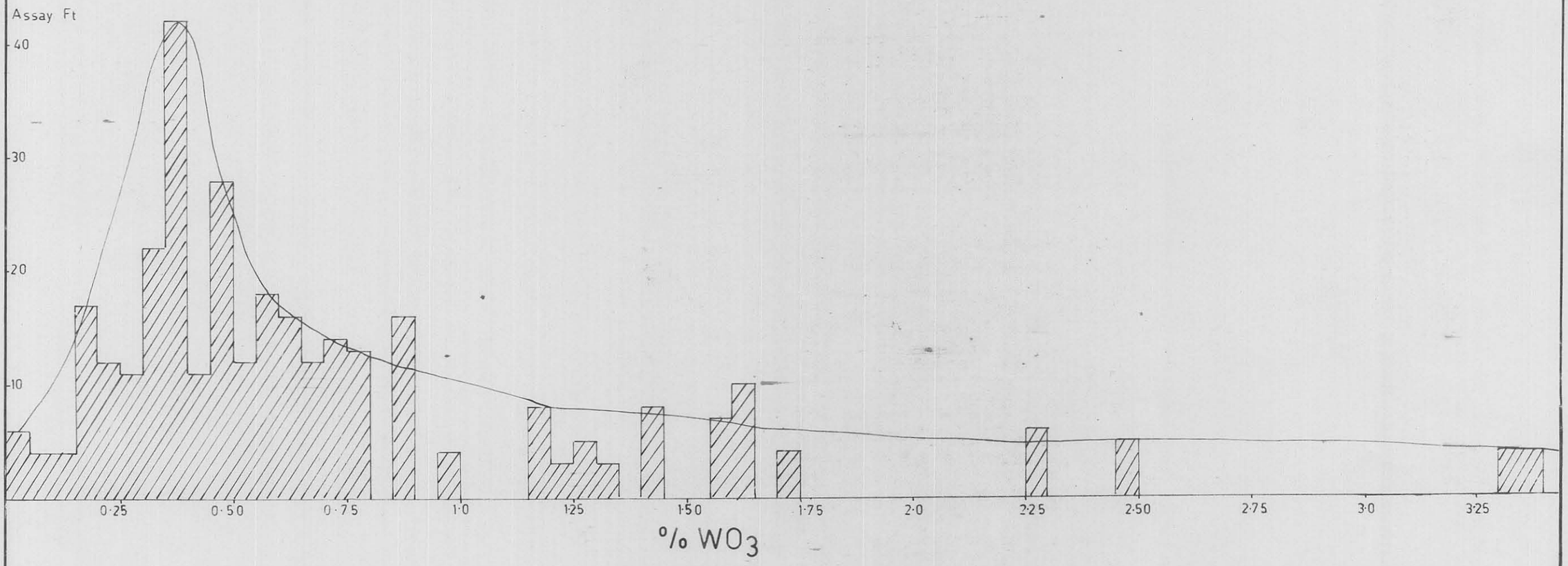
-200

-300

-400

5 cm

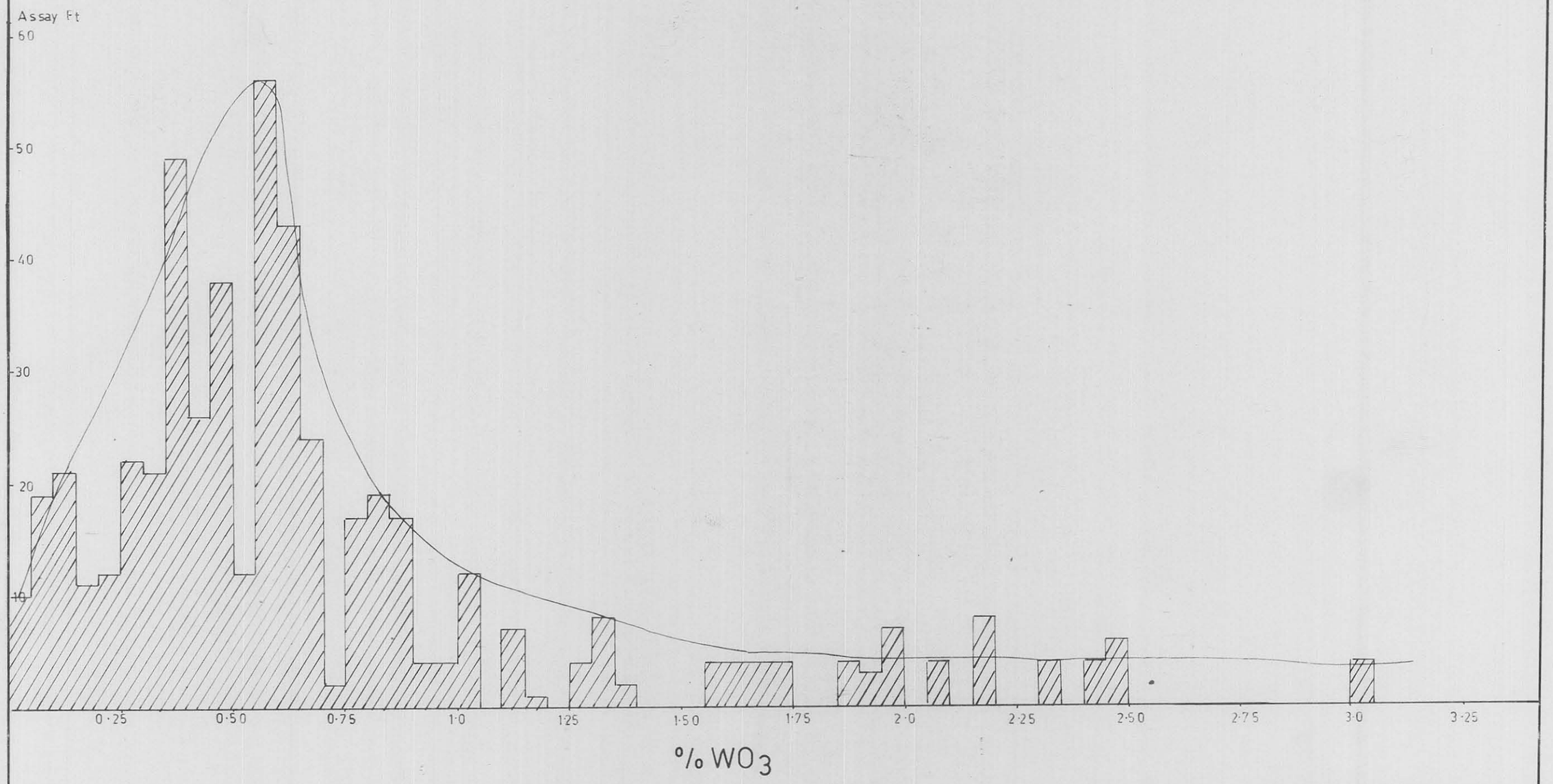
GEOPEKO LTD		Scale 1in - 50ft
INVESTIGATOR 1	068043	Date JULY 89
GEOLOGICAL LONG SECTION	Drawn L Szabo	G3-19
800E	Traced A.M.T.	6529
	Checked RLM	



068044

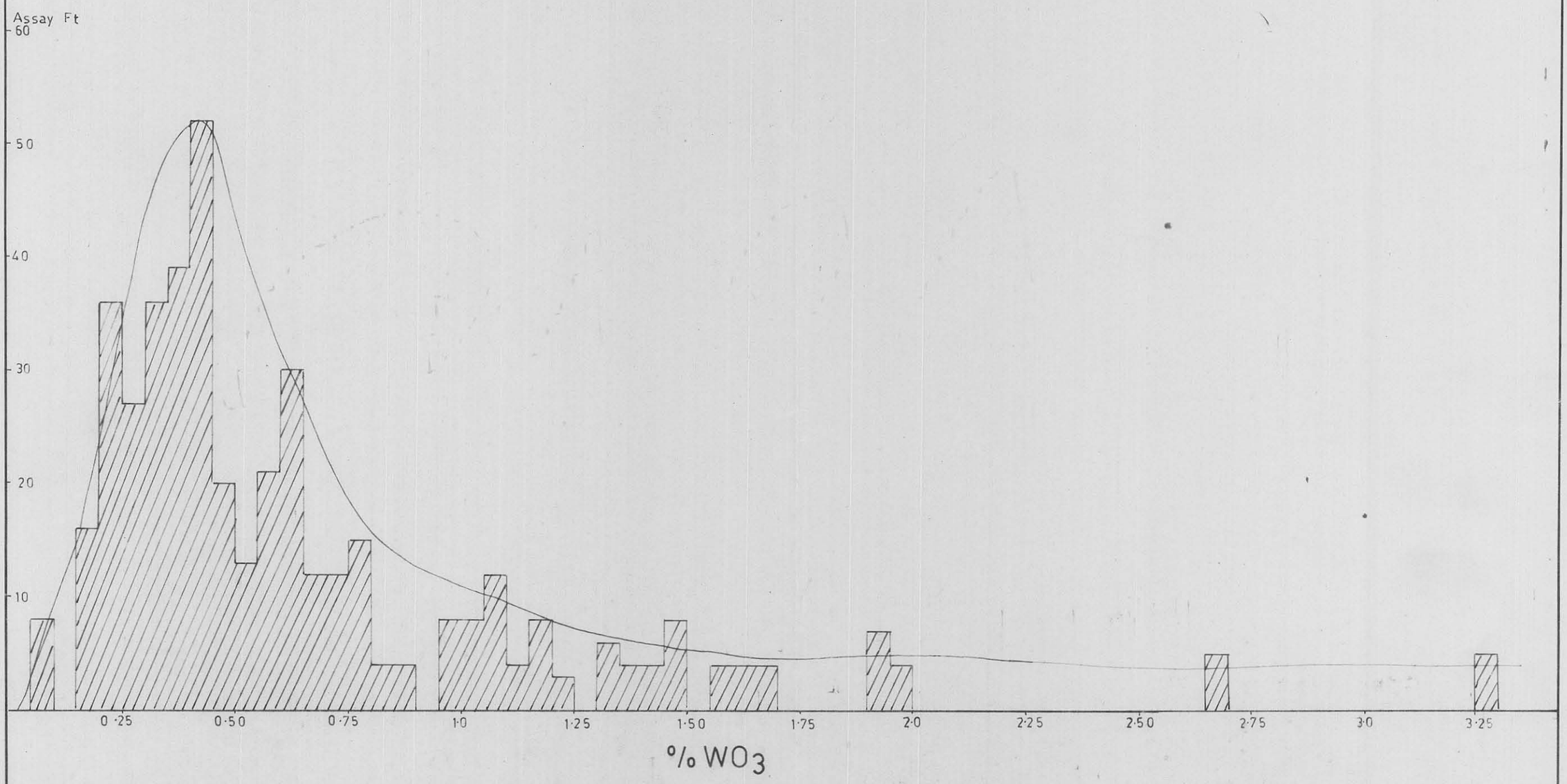
GEOPEKO LTD		Scale:
ASSAY HISTOGRAM A LENS Nº 3 OREBODY	Drawn: A.M.T. Traced: Checked: P.LeM.	Date: JULY '69 G3-20 6530

69-571



068045

GEOPEKO LTD		Scale:
ASSAY HISTOGRAM B LENS N° 3 OREBODY		Date : JULY 69
	Drawn : A.M.T. Traced : Checked: P.L°M.	G3 - 21 6531



068046

GEOPEKO LTD		Scale:
ASSAY HISTOGRAM		Date: JULY '69
O LENS Nº 3 OREBODY	Drawn: A-M.T.	G3-22
	Traced:	6532
	Checked: P.L&M.	

5 cm