A REPORT ON THE 1981 DRILLING PROGRAM ON THE CARMI 1 - 6 CLAIMS, THE OBSERVATORY, REVERTED CROWN GRANT AND, MINERAL LEASES 290 and 425

for KELVIN ENERGY LTD.

(Owner-Operator)

by GARRATT GEOSERVICES LTD.

N.T.S.: 82E/6,11

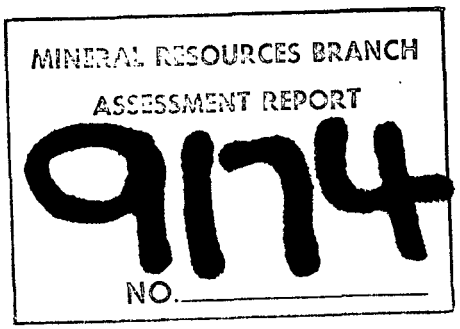
Latitude: 49° 29' 30" N.

Longitude: 119° 08' W.

G.L. Garratt, P. Geol.

March, 1981

Greenwood, M.D.



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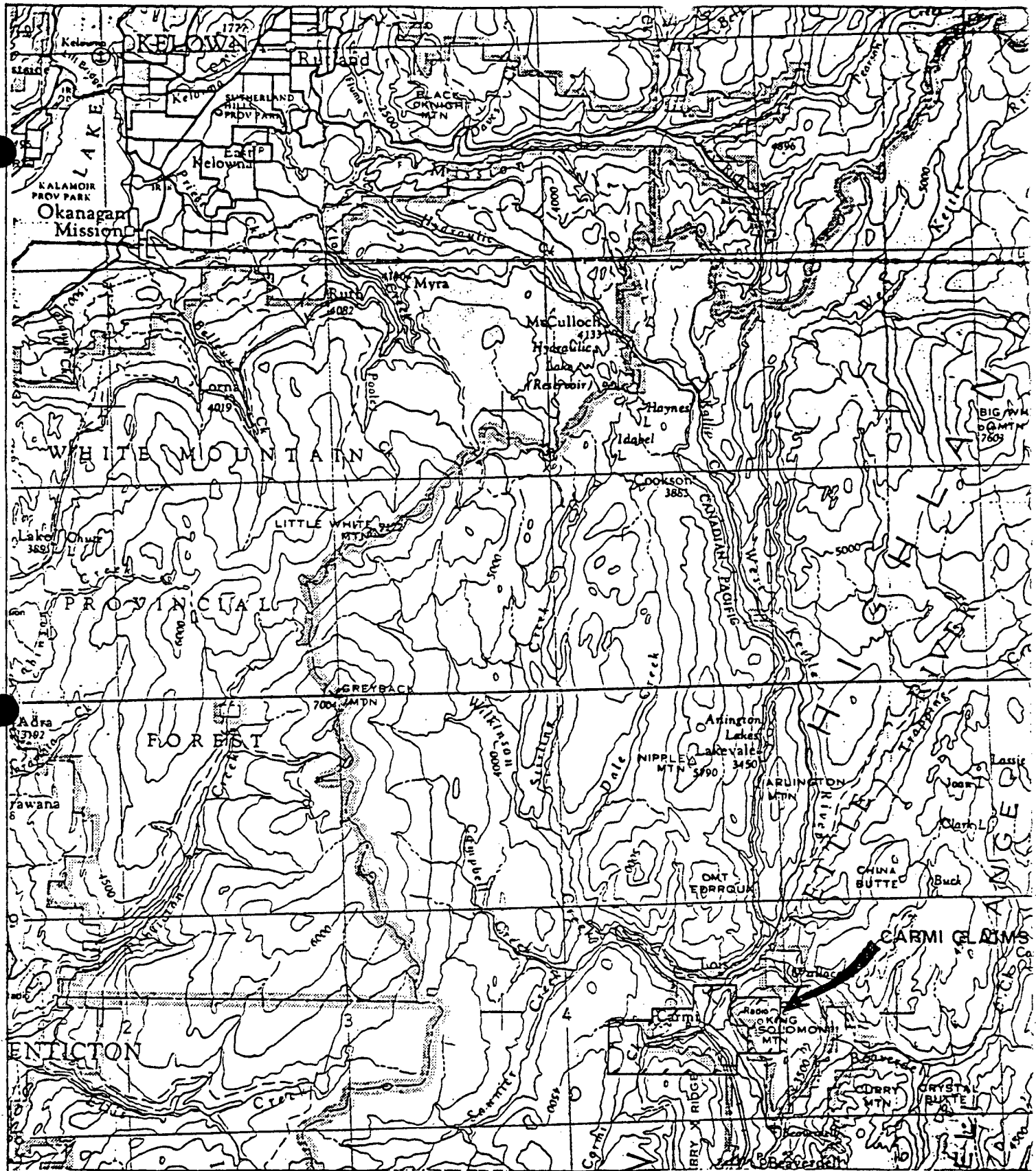
INTRODUCTION:

The Carmi prospect, located near Beaverdell, B.C., is held under option by Kelvin Energy Ltd. who contracted the author to supervise a diamond drilling program on the property. Eight NQ diamond drill holes, totalling 794.34 meters were cored during the period March 1 through March 18, 1981. The Carmi prospect covers several old gold-silver workings which include extensive underground development and these were a target for a portion of the drilling. The rest of the drill program was designed to test a long, curvilinear geophysical (E.M. & I.P.) anomaly which parallels an apparent fault-scarp. The geophysical anomalies were defined in a program carried out by Kelvin in the latter part of 1980.

The drilling indicates that the geophysical anomalies are related to pyrrhotite bearing metasediments and that gold-silver mineralization is intimately associated with a later quartz-pyrite vein system. Assay and geochemical analyses of core samples generally indicated subeconomic though anomalous values in gold and silver and three quartz vein intersections returned more interestering values over narrow widths. A follow-up program of BQ core drilling with a minimum of 250 meters in four holes, at an approximate cost of $58,960.00 is recommended to test vein extensions and continuity.

LOCATION AND ACCESS

The Carmi property is located approximately 8 kilometers north of the unincorporated village of Beaverdell and 86 kilometers southeast of Kelowna. The approximate co-ordinates are: latitude 45° 29' 30"N and Longitude 119° 08' W.



KELVIN ENERGY LTD

LOCATION MAP

CARMI PROJECT

TO ACCOMPANY REPORT	SCALE 1:250,000	DATE DEC. 1980
BY: L BELL	NTS 82E/6/11	FIGURE NO 1

LOCATION AND ACCESS - cont'd.

Highway 33, a paved two-lane road, crosses the property and is a secondary link between Kelowna, Beaverdell and Rock Creek. From Highway 33 a number of old logging roads and a section of the now abandoned Kettle Valley Railroad bed give excellent two and four-wheel drive access to the property.

OWNERSHIP

The Carmi prospect was acquired by Kelvin Energy Ltd. of Calgary, Alberta, through a purchase agreement from the Vendors - Messrs. J. Hinks and J. Olinger, of Kelowna, B.C. The claims which defines this property are as follows:

a) CLAIMS

Name	No. of Units	Record Date	Record Number
Carmi 1	20	Oct. 28/80	2449
Carmi 2	20	Oct. 28/80	2450
Carmi 3	20	Oct. 28/80	2451
Carmi 4	20	Oct. 28/80	2452
Carmi 5	4	Oct. 28/80	2453
Carmi 6	12	Oct. 28/80	2454

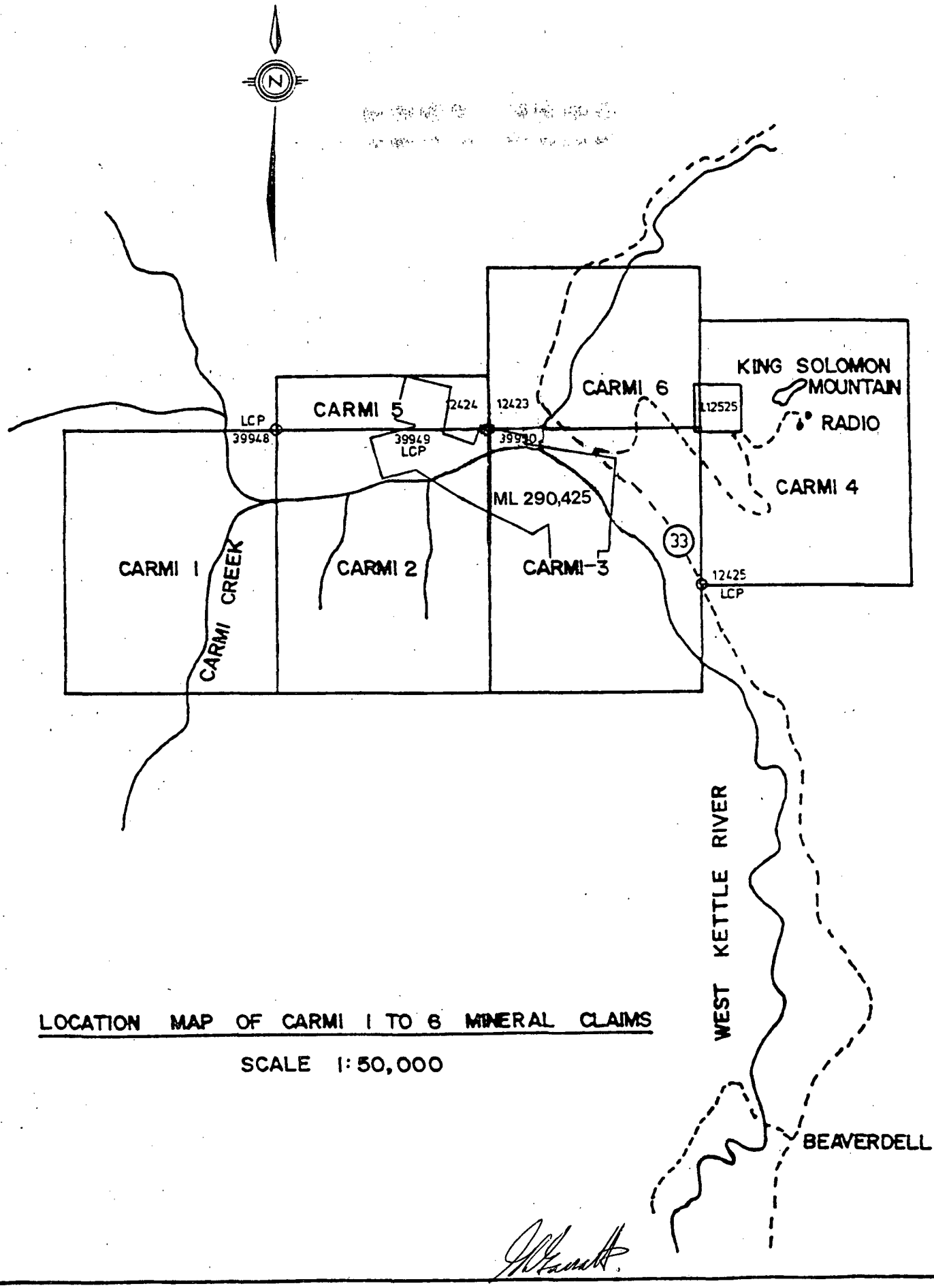
b) MINERAL LEASES

Number	Contained Lots	Acreage
M 290	L798, 2358, 2354, 1563, 1562, 1565, 2355, 2353.	410.90
M 425	483	2.52

c) REVERTED CROWN GRANTS

Name	Record Number	Lot	Acreage
Observatory	129	1252	51.65

FIGURE 2



LOCATION MAP OF CARMI 1 TO 6 MINERAL CLAIMS

SCALE 1:50,000

HISTORY

The Carmi-Beaverdell area has been an active precious metal camp since the discovery of the Highland Bell mine at Beaverdell around 1896. Within the present borders of the Carmi prospect, gold and silver were produced from three mines (the Carmi, Butcher Boy and May) intermittently between 1899 and 1940. In 1980, Kelvin Energy acquired the property and carried out geological mapping, induced polarization, electromagnetic and magnetic surveys.

SUMMARY OF DRILLING AND ROADBUILDING

Coates Enterprises Ltd., based in Kamloops, B.C. were contacted to carry out the diamond drilling. Eight diamond drill holes, utilizing NQ diameter, were completed for a total of 794.34 metres. A summary of the relevant data concerning the drill holes is as follows:

DRILL HOLE NUMBER	LOCATION (Line Station)	BEARING	DIPTEST (at hole bottom)	TOTAL DEPTH (m)
K-81-1	4+50E/0+27N	10	-45	76.2
K-81-2	6+35E/0+45S	45	-45	69.5
K-81-3	7-80E/1+90S	51	-45	150.88
K-81-4	5+15E/0+6N	10	-45	76.51
K-81-5	5-50E/0+12S	10	-60	127.71
K-81-6	2+04E/0+80S	352	-60	81.4
K-81-7	2+48E/1+11S	352	-60	117.65
K-81-8	1+50E/1+10S	0	-60	94.49

SUMMARY - cont'd.

The drill holes were located with respect to a grid which was established in 1980 as a control for the geophysical surveying. All the core is stored in core racks under cover, on the property.

Two roads were built to access the drill sites, utilizing a TD-20 International Harvester bulldozer. Approximately 400 meters of road were built to access holes K-81-1 - K-81-5, and approximately 280 meters of road were constructed to access holes K-81-6 through K-81-8. These roads are accessible by four-wheel drive vehicle in wet weather and two-wheel drive vehicle in dry weather. Hanging timber along these roads was cut away.

To prevent environmental hazards to the local drainages, settling ponds were constructed to catch the return water from the drill, and were subsequently filled in at the completion of the drilling program. The road building was guided such that a minimum amount of timber was brought down and a minimum land area disturbed. As these roads lie on private land, they are blocked from public use.

SAMPLING AND ANALYTICAL METHOD

Two hundred and one (201) core samples were submitted for analysis. Tables giving the sample intervals and hole numbers may be found in the appendices, along with the analytical results. The core was split in half where sampling was undertaken, and the split was collecte in plastic bags, tied and submitted for analysis. Samples 2001 - 2029 were assayed for Au, Ag, Cu, Pb, Zn and the remaining samples (2030-2201) were geochemically analysed for Au, Ag, Cu, Zn. All the analytical work was carried out by Chemex Labs. Ltd. at their Calgary laboratory.

SAMPLING - cont'd

The analytical method used by Chemex is as follows:

1. Preparation: Samples are sorted, crushed, split in a Jones riffler, pulverized in a puck and ring pulverizer.
2. Analyses: to analyse for Ag, Zn and Cu, a 1 gram sample is decomposed for two hours in a perchloric acid and nitric acid mixture, cooled, diluted to volume and analysed on an AA5 spectrophotometer.

Detection limits are 0.1 ppm for silver and 1.0 ppm for copper and zinc. Gold analyses begin with a 10 gram sample which is mixed with litharge (PbO), sodium carbonate, silica, borax glass, flour and 10 m.g. of silver; this mixture is fused in a fire assay furnace, the melt poured into steel moulds and the resulting button containing gold and silver is cupelled, leaving a silver prill which is dissolved in acids, diluted in HCl and analysed to a detection limit of 5 ppb for gold on an AA5 spectrophotometer.

DRILLING RESULTS

a) Geoglogy

Drill holes K-81-1 through K-81-5 were located along the upper southwestern side of a northwesterly trending fault scarp. This fault is marked by a sharp curvilinear topographic drop which roughly parallels the West Kettle River between lines 8+25E/200S and 2+25E/200N. This zone is also marked by strong induced polarization and VLF geophysical anomalies. The drilling indicates that this entire zone is underlain by a series of metasediments which range from sugary textured quartzites through metacalcarenites to varieties of gneiss including porphyritic types. The metasediments belong

DRILLING RESULTS - cont'd.

to the Permian Anarchist Group and show highly variable dips (generally moderate to the southwest) which reflects the degree of rotation along structural breaks. No correlation between holes was possible due to this phenomenon and the lack of distinctive marker units.

The metasediments are highly variable in colour and thus in their contained mineralogy. Quartzites vary from grey siliceous units through brown biotitic to green chloritic varieties and are the dominant rock type. Gneisses vary from holocrystalline granular to porphyritic and from strongly to weakly foliated, though segregation banding was not observed. The gneisses are commonly biotitic and/or chloritic.

The metasediments are thin bedded (1 to 15 cm) and the gneisses vary in thickness from a few centimeters to a few meters. All the beds appear to be conformable with the exception of rare 1 - 5 cm thick lenticular bands.

The metasediments are cut by numerous quartz, quartz-pyrite and quartz-calcite veins which vary from hairline veinlets to 1.0 meter thick veins. The latter variety are commonly zoned with a massive milky white quartz core and chlorite $\pm$ potassium feldspar boundaries. Several breccia zones were observed in the metasediments. These zones appear to have been formed by movement along fractures with subsequent hydrothermal alteration along these dilated and broken zones. The breccias are commonly graphitic and/or chloritic and often have clay rich fault-gouge boundaries. Calcite and/or chlorite commonly coat fractures in the section and often display slickensides. Rare zones of dilated

DRILLING RESULTS - cont'd.

fractures with crystalline zeolite vein development were observed The veins and breccia zones do not appear to correlate stratigraphically from one hole to the next, as they occur randomly at many intervals in each hole. The breccia zones vary from 1 to 3 cm to 1 - 2 meters in thickness and grade from rotated unaltered angular metasediment fragments to completely altered clayey to siliceous subrounded fragments set in a soft clay-chlorite or graphitic matrix.

Drill holes K-81-6 through K-81-8 were located to the south of the easterly trend of the Carmi-Butcher Boy veins and were directed at intersecting these veins and an undeveloped vein below the levels of the old workings. These holes were drilled through intrusive rocks in their entirety, which are described as follows, in order of abundance:

a) granodiorite (occassionally grades to quartz monzonite or diorite); generally medium grained, grey to pink with chloritized anhedral mafics and less common biotitic zones; local zones of epidotization and minor potassium feldspar alteration (vahalla intrusions).

b) quartz diorite-diorite (probably of the Nelson intrustions); these are often porphyritic and commonly foliated; mafic minerals are anhedral and chloritized; fine to medium grained.

c) quartz monzonite dykes.

d) quartz-potash feldspar veins (dykes?) - these occur as grey fine grained quartz-feldspar veins which often carry tiny K-spar subhedral phenocrysts and/or irregular patches

DRILLING RESULTS - cont'd.

of pink potash feldspar. (post Cretaceous?) (often referred to as felsic zones in drill logs).

e) quartz, quartz-K-spar, quartz-calcite ± pyrite veins; often associated with clay rich fault gouge.

f) andesite dykes - fine grained, very chloritic and ocassionally porphyritic (Marron Formation Feeders?)

The granodiorite-monzonite and quartz diorite-diorite intrusives show no clear cross-cutting relationships and give the impression of an interfinerging contact zone in this area. The felsic quartz-K spar veins and quartz monzonite dykes cut both the major intrusive varieties as do the quartz with accessory mineral veins

b) Mineralization

The geophysical anomalies in the River Adit - fault scarp zone are concluded to be attributable to extensively disseminated pyrrhotite in the metasediments. The pyrrhotite occurs as finely disseminated anhedral grains in amounts of one to four percent and is distinctively stratiform and moderately magnetic. Thin (0.5 - 1.0 cm) massive granular accumulations were observed occasionally and remobilization into fractures was rarely observe The pyrrhotite commonly occurs as disseminations up to 3 per cent within specific bands or beds, while the adjacent bands contain noteably less pyrrhotite possibly indicating an inherent chemical variation in the sediments prior to metamorphism. It is concluded that the pyrrhotite was formed prior to the base and precious metal deposition due to the stratiform nature of the bulk of the pyrrhotite and the quartz vein and fracture association of the economic mineralization. Chalcopyrite was observed to occur within aggregates of pyrrhotite, (texturally appears to

DRILLING RESULTS - cont'd.

be exsolved chalcopyrite) but this was seen to be rare and showed no precious metal or zinc association in assays. The gold and silver values which showed anomalous conditions were invariably associated with quartz + accessory veins or graphite and/or chlorite rich zones, including breccia zones. The quartz vein mineralization appears to be best developed in massive white veins which carry minor to noticeable amounts of pyrite, sphalerite or chalcopyrite and rarely, traces of galena. Zones of pyritic gouge or pyritic-graphitic breccias also show anomalous conditions. The following table displays the most significant intersections.

CORE SAMPLE RESULTS

Sample No.	Hole No.	Interval (meters)	Au	Ag	Cu	Pb	Zn	Rock Type
2004	- K-81-1 :	7.47-8.50 (1.03M)	0.26 oz.	0.3 oz.	0.01%	0.02%	0.31%	Qtz. Vein
2048	- K-81-1 :	62.48-64,01(1.53M)	85 ppb	0.0 ppm	53ppm		97 ppm	Brecciated & altered metased.
2071	- K-81-1 :	34.4-34.95 (0.55m)	-10 ppb	175 ppm	145 ppm		1857 ppm	Qtz. Vein in pyritic breccia
2089	- K-81-3 :	29.7-30.0 (0.30m)	-10	8.4	139		1681	Brecciated metased & graphite + pyrite
2114	- K-81-3 :	119.4-120.0 (0.6m)	-10	16.4	148		1582	graphitic breccia
2115	- K-81-3 :	120.0-121.0 (1.0m)	1150	326	4520		31,900	Qtz. vein & cpy, Sph, gn.
2116	- K-91-3 :	120.0-122.5 (1.5m)	-10	10.3	124		374	Metaseds.
2122	- K-81-3 ;	128.8-130.2 (1.4m)	-10	10.8	123		16,420	Cpy, Sph, gn & Metaseds.
2147	- K-81-4 :	68.59-69.5 (0.92m)	300	3.3	94		412	Pyritic, siliceous
2185	- K-81-6 ;	65.2 -66.0 (0.8m)	210	-0.1	57		133	Qtz. Vein
2197	- K-81-7 :	90.5 -91.9 (1.4m)	70	1.4	23		170	Qtz-py Veins in altered int.
2198	- K-81-7 :	91.9 -93.6 (1.7m)	160	0.8	35		152	as above

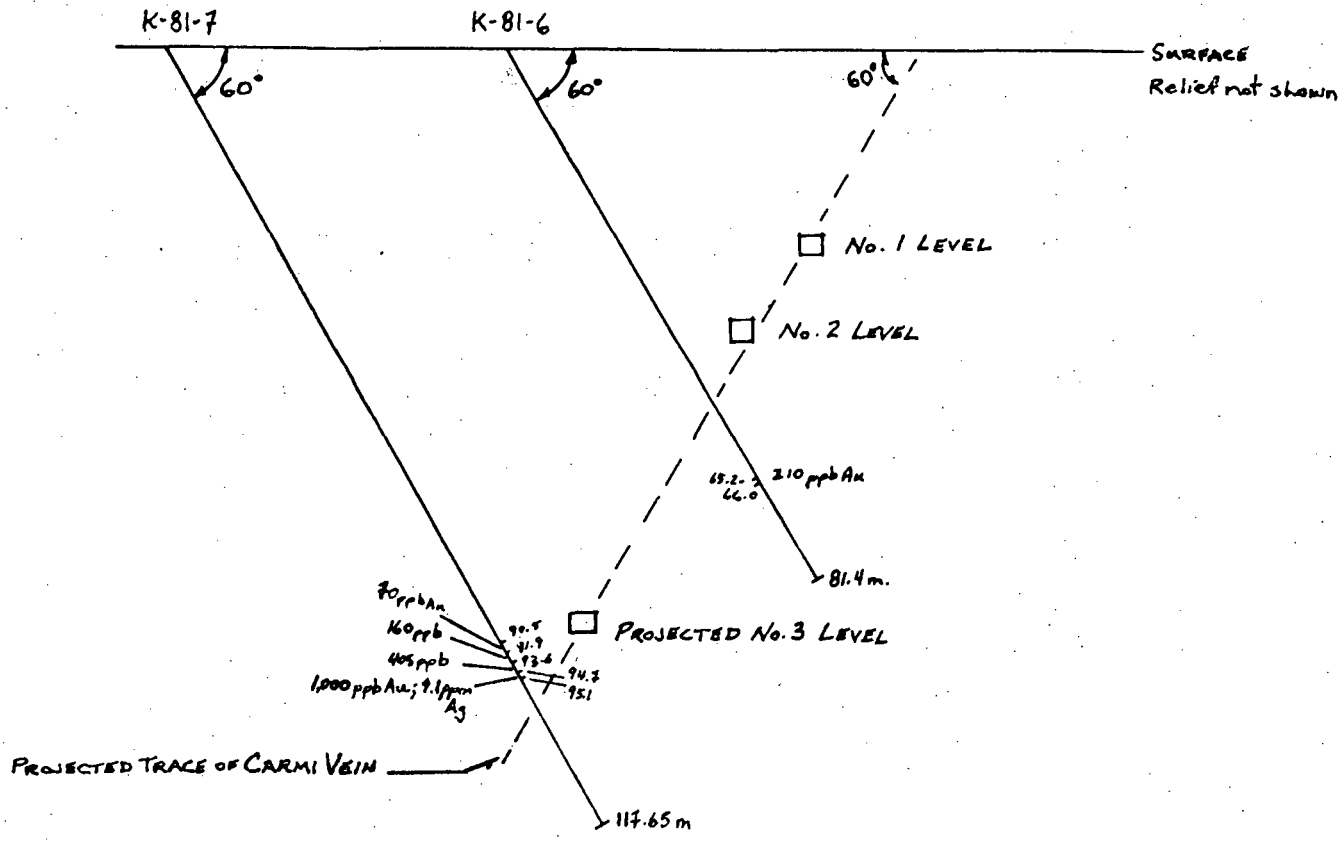
CORE SAMPLE RESULTS - cont'd.

Sample No.	Hole No.	Interval (meters)	Au	Ag	Cu	Pb	Zn	Rock Type
2199	- K-81-7 :	93.6-94.7 (1..7M)	405	2.7	63		194	Qtz-py Vein
2200	- K-81-7 :	94.7-95.1 (0.4m)	1000	9.1	27		1940	pyritic gouge
2003	- K-81-1 :	7.1-7.47 (0.37)	0.005 oz/ ton	0.05 oz.	0.01%		0.05%	Chloritic zone, qtz. veinlets, py.
2005	- K-81-1 :	8.5-8.84 (0.34)	0.007 oz	0.04 oz	-0.01%		0.01%	alt'd zone + minor gneiss
2072	- K-81-2 :	36.2-36.4 (0.20)	30 ppb	0.6 ppm	64.0 ppm		71.0 ppm	gneiss
2074	- K-81-2 :	39.140.6 (1.5m)	-10 ppb	5.1 ppm	7.20 ppm		2183.0ppm	graph-py breccia zone
2083	- K-81-2 :	68.3-68.58 (0.28)	-10 ppb	4.6 ppm	75.0 ppm		310.0ppm	graphite-chlorite zone
2142	- K-81-4 :	63.0-64.92 (1.92)	-10.0	4.2	51.0		1213.0	quartz-pyrite vein
2151	- K-81-5 :	20.8-21.2 (0.4)	-10.0	3.5	79.0		2920.0	sph + qtz + calc + chl
2158	- K-81-5 :	46.9-48.01 (1.1)	-10.0	2.8	125.0		1649.0	metseds + qtz + cpy + py
2159	- K-81-5 :	48.0-49.5 (1.5)	-10.0	1.9	178.0		1037.0	as 2158
2190	- K-81-7 :	9.4-10.3 (0.9)	-10.0	3.0	15.0		142.0	qtz -K-spar + gouge
2191	- K-81-7 :	12.3-12.9 (0.6)	-10.0	4.5	203.0		56.0	quartz vein

DRILLING RESULTS - cont'd.

Only three samples, 2004, 2071 and 2115 indicate the possibility of obtaining ore grade intersections and these contain :0.26 ounces per ton gold; 175 ppm silver; and 326 ppm silver, respectively. The table contains twenty-three other interections which display anomalous conditions at sub-ecomonic levels in gold or silver, or anomalous silver-base metal values. Due to the erratic nature of metalization in quartz-vein or hydrothermal systems, it is concluded that these anomalous conditons may reflect more significant mineralization than their values indicate. This premise can be supported to some degree by viewing the analytical and sampling process which can highly influence the quantitative reliability of these analyses. The samples were initially crushed to a fragment diameter of 1/8 to 1-1/16 inch from which a subsample was obtained for further crushing, followed by another subsample and subsequent analysis. Recent evidence (GAC Gold Symposium - March, 1981 - Vancouver) shows that this method can significantly reduce the probability of obtaining an 'average' representative of the original sample and would influence the quantitative reliability of the analyses. It can be concluded that an anomalous precious metal value in any given sample is indicative only of the presence of mineralization and not necessarily of the actual grade. The reject material from the samples listed in the tables have, therefore, been resubmitted for analyses to better determine or to substantiate the original analyses.
In this second analyses, the reject material (previously crushed to 1/8 to 1/16 inch diamter) will be crushed to 150 - 200 mesh from which a more homogenous and larger subsample will be obtained. These samples will be fire assayed to determine their gold-silver contents.

FIGURE 3: CROSS SECTIONAL SKETCH - CARMI MINE



0 10 20 30 40 meters

SCALE: APPROX. 1:1,000

G.L. GARRATT APRIL, 1981.

DRILLING RESULTS - cont'd.

The drill intersections indicate that previously unexplored mineralized vein systems have invaded the metasediments to the southwest of the River Adit. Additionally, sample 2185 is interpreted to represent the vein system of the Carmi No. 2 level, and samples 2197 through 2200 are interpreted to represent an intersection of the projected Carmi No. 3 level vein; these intersections were roughly interpreted from a 1935 underground plan of the Carmi and Butcher Boy Mines. These intersections are displayed in a cross-sectional sketch on Figure 3 and are not held to be definitive with respect to the geometry.

CONCLUSIONS AND RECOMMENDATIONS

It can be concluded that:

1. The geophysical anomalies in the River Adit area are due to extensively disseminated pyrrhotite in amounts up to four percent; commonly averaging two to three percent.
2. Geophysical surveying techniques do not appear to to be useful in delineating gold-silver bearing veins or structures.
3. Quartz-vein and chlorite-graphite breccia hosted gold-silver mineralization was discovered in the River Adit area, which was previously unexplored.
4. Vein hosted mineralization at deeper levels than previously worked in the Carmi Mine area was intersected in holes K-81-6 and K-81-7.

CONCLUSIONS AND RECOMMENDATIONS - cont'd.

5. Analytical results obtained from mineralized drill intersections may not be truly representative of the grades which might occur within the host structures and veins.
6. Previous work by Kelvin (in the River Adit assessment report - 1980 - Camri Gold Project) and at the Carmi and Butcher Boy Mines indicates that precious metal values are erratic but attain levels in the order of 0.5 ounces/ton gold and several ounces silver per ton, and that vein systems may pinch and swell over short distances.
7. An association between mineralized veins and the strong structural feature southeast of the River Adit cannot be conclusively established but offers a strong exploration possibility.
8. A good exploration potential exists to develop vein hosted gold-silver mineralization over substantial strike lengths on the Carmi property.

To explore the possibilities outlined in the above conclusions it is proposed that further diamond drilling be undertaken on the Carmi property. Due to the competence of the rock, as experienced during this drilling project, it is recommended that BQ core be utilized to minimize cost. The results of the analytical checks, presently being carried out, will influence to some degree the magnitude and approach of the proposed program, but should not be

CONCLUSIONS AND RECOMMENDATIONS - cont'd.

used as a deterrent to further exploration.

A minimum program to determine vein extensions and continuity would require four holes for a total of 520 meters as outlined below:

LOCATION	BEARING	DIP	TOTAL DEPTH	TEST
3+00E/95S	350	-60	140 m	Carmi Vein
4+50E/50S	350	-60	140 m	Carmi Vein - River Adit Vein
5+90E/35S	30	-45	90 m	Between K-81-2 & K-81-4
6+75E/1+25S	55	-45	150 m	Between K-81-2 & K-81-3

These holes represent a minimum exploration test as the distances between drill holes still precludes obtaining a reasonable definition of grade or tonnage. The drilling outlined would, however, define the continuity of the vein systems and might intersect higher grade intersections, both of which would be reason to continue exploration utilizing more closely spaced drilling.

A rough estimate of the cost of the above program is as follows:

Drilling - BQ Core - 520 m x $80.00/m	$ 41,600.00
Supervision and report preparation 1 man x $250.00/day x 20 days	5,000.00
Support costs - vehicle, bulldozer, accommodations, etc.	5,000.00
Assays - 100 samples x $20.00/sample	2,000.00
TOTAL	$ 53,600.00
10% overhead	5,360.00
	$ 58,960.00

COST STATEMENT

CARMI DRILLING PROJECT - KELVIN ENERGY LTD.

Account of Costs - Summary

Drilling	$
K-81-1	5,811.00
K-81-2	5,316.00
K-81-3	11,506.80
K-81-4	5,833.80
K-81-5	9,740.25
K-81-6	6,205.95
K-81-7	8,972.70
K-81-8	7,206.00
Mob. & Demob.	4,144.00
Other	5,330.45
	70,066.95
House Rental	450.00
Truck Rental	411.67
Truck Fuel	120.00
Food	336.00
Geologist	6,795.24
Shipping	120.00
Assays	2,282.10
Wood & Slash	110.00
Telephone	75.00
Cat	5,225.00
	85,991.96

- STATEMENT OF QUALIFICATION -

I, GLEN L. GARRATT, residing at 2540 Skeena Dr., Kamloops, B.C. do hereby testify that:

1. I am a practising geologist and have been since 1972, after completing a B.Sc. majoring in geology at the University of British Columbia.
2. I am a member in good standing of the Association of Professional Engineers, Geologists, and Geophyscists of Alberta and a Fellow of the Geological Association of Canada.
3. The conclusions, statements and recommendations made in this report are the result of my direct supervision of the drill program on the Carmi prospect.

G. L. GARRATT, P. Geol.

April 21, 1981

APPRENDIX 1 : DRILL HOLE LOGS

D.D.H-K-81-1:

Bearing: 10°
Dip test: -45°
Location: L 4+50E/0+27N

Total Depth: 76.2m Logged by: G.L. Garratt.
Collared : March 3/81.
Completed : March 4/81.

Depth(m)	Description
0-3.35	casing.
3.35.4.57	overburden - heavily fractured suboutcrop - iron stained feldspar porphyry.
4.57-7.1	feldspar - hornblende porphyry: white sub to euhedral 1-3mm. feldspar and hornblende phenocrysts set in a very fine grained groundmass; medium to coarse grained; foliated at -10°; heavily fractured at 10°, 70°, 90°; chloritized mafics in groundmass; very fine grained grey quartz in groundmass; gneiss.
7.1-7.47	very fine grained, medium green chloritic zone; 1-2 hairline quartz veinlets per cm.; 1-2% disseminated sub-euhedral pyrite.
7.47.8.5	quartz-vein: white, milky; massive; heavily fractured; 2-3% disseminated sub-euhedral pyrite and in veinlets at 45° to 65°.
8.5-8.84	altered gneiss; porphyritic (feldspar); grey-green, weakly brecciated; 1-2% finely disseminated py.
8.84-14.02	altered grey-green zones with intermittent (intercalated) feldspar porphyry gneiss; white - locally clay altered - subhedral feldspar phenocrysts in a chloritic grey-green groundmass; quartz - carbonate veinlets - 1 per 10-20 cm. with minor py; few 5-10 cm. siliceous zones which are locally coloured brown - biotitic; 11.57-12.17: siliceous zone at 45° (0° true) with minor po; minor hematite with quartz veinlets; fractures at 10°, 45°, 60°, and 75° are clayey and often slickensided and commonly carry minor to 1% py; pale greenish color with occasional quartz vein - sausserite (?).
14.02-15.37	metasediments - heavily fractured; alternating green chloritic and brown to red-brown hornfelsic (biotitic) bands (laminated); locally offset on fractures; wisps of pyrite parallel to bedding; abundant calcite veinlets; bedding at 20° - 40° - but irregular due to fracturing; calcite veining ± quartz.

15.37-17.41 dark green chloritic; fine grained; occasional white feldspar phenocrysts; numerous calcite $\pm$ minor quartz veinlets (-90^{o} - 70^{o}); 16.12-16.65: siliceous grey to red-brown, very fine grained zone.

17.41-19.81 Brecciated metasediments: remnant bedding at 45^{o}; quartz, carbonate and quartz-carbonate veining at -90^{o} and 45^{o} dip; minor disseminated pyrite along some bands; very chloritic beds locally and on fractures; brown biotite coloration locally; minor chalcopyrite; sulphides are fine grained and difficult to see except where occasional massive accumulations of pyrite (to 1 cm.) occur; abundant chlorite on slickensided fractures at 45^{o} and $10-15^{o}$ dip; rare 1-3 mm py veinlets; minor movement (1 cm.) on 45^{o} (true) fractures.

19.81-21.0 as above: metaseds are quite calcareous.

21.0-22.86 as above: bedding at $15^{o}-20^{o}$; variable locally.

22.86-24.10 as above: less chlorite - confined to wisps parallel bedding and veinlets; bands are grey to grey-brown - locally greenish; pyrite lacking except locally disseminated or in discontinuous veinlets (to 2%); heavily fractured, grey-black locally; 1-2 cm. quartz rich zones locally (every 30 cm.); graphite on occasional fractures (-10^{o}) - slickensided; brecciation is "pseudo" - created by intense fracturing and subsequent healing by quartz $\pm$ carbonate.

24.1-25.91 finely disseminated py in quartzose zones; minor pyrrhotite coating fractures; very calcareous; 40-50 cm. siliceous zone with 2% disseminated po just before 25.91 which carries calcite and quartz and minor py and minor chlorite and minor feldspar and minor chalcopyrite.

25.91-27.4 metasediments: grey to grey-black and white banded; bedding at 10^{o} - 20^{o} dip; quartz veining and chloritic fractures at 45^{o}; locally see feldspar phenocrysts in a chloritic groundmass where bedding is destroyed; 2-3% disseminated po and minor chalcopyrite; minor galena (?); calcite - chlorite coated fractures at 45^{o} and $75^{o}-80^{o}$ (true dip).

27.4-28.96 as above but with less recrystallized (gneissic) material and more banded bedded metaseds.; grey-white-black at $10^{o}-15^{o}$; minor chlorite

and calcite on fractures at 45°, 10° and 0°; disseminated po and on fractures with chlorite.

28.96-30.26 as above: 1-2% disseminated po.; minor potash feldspar locally as fine disseminations.

30.26.31.76 as above: more graphitic fractures; po or py as veinlets parallel bedding (35°-40°) or as disseminations along bands or on fractures.

31.76.33.1 as above: banding (lensial - very disrupted) at approx. 25°; 2-3% finely disseminated po.; minor chalcopyrite; white subhedral feldspar phenocrysts locally.

33.1-34.5 as above: sub-sugary texture locally; tiny pink K-spar phenocrysts pervasively disseminated with quartz and po and chlorite; graphite ± calcite on fractures; heavily pyrrhotized.

34.5-35.8 as above: subhedral phenocrysts of feldspar locally; 1-2mm. disseminated subhedral pink K-spar phenocrysts; 2-3% disseminated po.; bedding at 20°; trace chalcopyrite.

35.8-37.3 gaining porphyritic texture with white feldspar phenocrysts; minor K-spar; remnant bands or fragments of metasediments at 40°; breccia locally with quartz - po in matrix; 4-5% po in some 2-3 cm. dark grey remnant bands of sediment; altered gold coloured biotite locally along bedding planes; minor chlorite and calcite on fractures; 1-3% disseminated po on average.

37.3-38.5 siliceous zone: contact with metasediments at 37.5; quartz - feldspar porphyry - grey-white equigranular-sub to anhedral phenocrysts; very fine grained groundmass; bands and lenses to 1 cm. of quartz; 38.2-38.3: bleached zone - alligned anhedral subangular to lenticular 1-3 mm. grey quartz grains in white very fine grained groundmass; sharp contact with dark grey quartz - feldspar porphyry with very fine partially chloritized hornblende laths (1-2 mm. long); 1-2% disseminated po; 1-2% small subhedral pink K-spar disseminated locally; chlorite and calcite on 10°-20° fractures; 20°-30°dip on metasediments; beds are often lensial and are commonly fragments or differentially altered and replaced segments; sugary texture in more siliceous or dirty quartzite zones.

38.5-39.9 as above: interbedded very fine grained metasediments and medium grained sub-gneissic to porphyritic zones; occasional brown-biotitic bands to 1 cm.; fractures parallel banding at 35^{o}-45^{o}; felsic quartz-feldspar zone at 39.8-39.9; rare 1 mm. K-spar - subhedral phenocrysts; po pervasively disseminated.

39.9-41.2 39.9-40.4 - felsic quartz-feldspar and po zone with minor chlorite and a 5cm. zone of feldspar porphyry which has a chloritic groundmass (dioritic); bedding at 45^{o}; very siliceous; 40.4-41.2 - banded to massive dark grey siliceous very fine grained to fine grained metasediments with white felsic interbeds; 40.4-40.6 vuggy open space vertical irregular veining with tiny euhedral clear to white obliquely terminated crystals (zeolite?); less than 1% po but local 2-3 cm. zones carry 2-3% po; trace chalcopyrite; minor pyrite.

41.2-42.8 felsic zone - quartz-feldspar $\pm$ K-spar; 1-4% disseminated po and minor chalcopyrite; trace MoS_2(?); remnant bedding locally visible at 25^{o}; generally massive with occasional feldspar phenocrysts.

42.8-44.1 combination of felsic zone with some calcite, more abundant chalcopyrite (less than 0.5%); minor sphalerite; 10-15 cm. chloritic zone and 10 cm. graphitic zone with 1% py; abundant graphite on slickensided fractures; minor py veinlets.

44.1-45.5 very broken zone - chloritic matrix; less than 1% py; minor po; abundant graphite especially on 0^{o}-15^{o} fractures; felsic rounded fragments locally; chloritized hornblende laths locally.

45.5.47.1 as above but with little to no quartz; less than 1% py; minor graphite; very chloritic, minor zeolite (?) crystals; minor talc.

47.1-48.24 brecciated metasediments as above: chloritic matrix; remnant banding often visible; 0.5-1.0% py; graphite abundant on 55^{o}-75^{o} fractures.

48.24-49.7 white to grey to black siliceous, very fine grained metasediments; K-spar $\pm$ po in 1cm. bands locally; chloritic and brecciated locally; sulphide poor with local disseminations of po.

49.7-51.0 as above except po occurs locally up to 2% as disseminations; py occurs in veinlets; brown biotitic zones common.

51.0-52.1 alternating dark grey very fine grained massive to 3.4 cm. banded metasediments (at 10^{o}-20^{o} true) and quartz-feldspar sub-porphyry

with chloritic groundmass; locally brecciated; less than 1% py ± po; minor K-spar ± quartz; occasional brown biotitic zones.

52.1-53.5 alternating quartz-feldspar sub-porphyry (+ chlorite ± K-spar) with quartz bands and pink K-spar rich bands to dark grey very fine grained metasediment and brecciated calcite-chlorite healed recrystallized sediments;disseminated and veinlet po with minor py ± chlorite; 2 cm. siliceous bands at 10°; patchy K-spar alteration locally; heavily fractured at 45° and 10°.

53.5-55.0 brecciated altered metasediment: local development of subhedral feldspar; chloritic matrix; abundant chlorite and calcite veining and fracture coating; 1-2% py as discontinuous veinlets and minor disseminations; occasional pink disseminated K-spar; greyish (clay?) alteration wisps throughout; generally felsic, grey to green; fractures at 70° and 45°; remnant bedding at 15°; trace chalcopyrite and pyrite and chlorite - calcite.

55.0-56.3 metasediments - grey to grey-brown, locally recrystallized to quartz-feldspar and K-spar as tiny subhedral disseminations; banding at 30° and 10°; altered fragments locally - chloritic - siliceous; fractures at 90°, 45°, 30°; 1% disseminated po and py.

56.3-57.7 brecciated and altered metasediments as 53.5-55.0; graphitic locally on 10° fractures; less than 0.5% sulphides.

57.7-58.8 as above.

58.8-61.0 as above: very little sulphide; very chloratic; very broken - locally mushy and graphitic.

61.0-62.48 as above.

62.48-64.01 as above - 30% recovery; one piece of core with abundant biotite, 0.5% py.

64.01-65.0 grey banded metasediment - at 45°; local white-grey siliceous zones; fractures at 0° parallel banding; broken up breccia at 64.6-65.0; 1% py or po on fractures and finely disseminated; minor chlorite and calcite on fractures.

65.0-65.53 recrystallized - subporphyritic quartz-feldspar; very chloritic locally; weak K-spar development; trace molybdenum (?).

65.53.66.45 felsic zone: relict bedding at 45°; grey quartz "veins" with chloritic borders; weak K-spar in 2-3 cm. zones; greyish-green clay alteration locally as wisps throughout groundmass; few grey quartz veins crosscut banding.

66.45.67.9 felsic to 67.0 - quartz veins and grey very fine grained metasediment and light grey quartz-feldspar, 67.0-67.9 - brecciated pyritic - quartz - chlorite ± calcite; trace molybdenite (?) with K-spar; 1-2% finely disseminated py in darker coloured zones; 2-3% euhedral pyrite locally.

67.9-69.0 chloritic feldspar porphyry - white subhedral feldspar phenocrysts in a fine grained chloritic groundmass; minor disseminated pyrite; few angular felsic fragments and quartz veinlets; 1-2% brown biotite; chlorite - calcite on fractures.

69.0-70.5 same porphyry - 2-4% finely disseminated pink K-spar; white subhedral feldspar in a very fine to fine grained chloritic groundmass; minor pale green to grey-green clay (?) alteration; less than 1% disseminated po and py; quartz in groundmass and locally at 2-3 cm. lenticular bands;locally brecciated with dark green chloritic fragments set in quartz-feldspar matrix.

70.5.72.0 as above - medium brown glassy subhedral phenocrysts locally (?); minor chalcopyrite and po.

72.0-76.2 as above: fractures at 80° and 45°; 0.5% finely disseminated po.

- End of Hole -

D.D.H-K-81-2:

Bearing: 45° Total Depth: 69.5m Logged by: G.L. Garratt.
Dip test: -45° Collared : March 4/81.
Location: 6+35E/0+45S Completed : March 5/81.

Depth(m)	Description
0-12.3	casing - overburden.
12.3-13.1	sub-porphyritic - weakly foliated; anhedral white feldspar phenocrysts set closely packed in a very fine grained grey groundmass with minor chlorite, trace po; medium grained; chlorite ± calcite on fractures.
13.1-17.6	massive, very fine grained grey rock with subhedral black hornblende (5-10%) phenocrysts locally; cut by numerous calcite veinlets; 15.6-15.8 - felsic zone with blotchy pink K-spar, minor po.
17.6-17.8	chloritic shear and graphite and minor talc, at 45°, heavily slickensided.
17.8-20.1	breccia - very fine grained grey to black angular fragments to 3 cm. set in a fine grained felsic and locally chloritic matrix; heavily fractured; graphite commonly on 60° fractures; remnant bedding locally but variable and broken; little to no sulphide.
20.1-22.0	metasediments - thin bedded, very fine grained, grey, white-dark grey; heavily fractured - coated with chlorite and calcite ± graphite; 1-2% disseminated and veinlet po; beds dip at 25-45°.
22.0-22.25	subporphyry - white subhedral feldspar phenocrysts in chloritic - grey groundmass.
22.25.23.3	interbedded grey metasediments and recrystallized porphyritic metasediments; brecciated locally; occasionally see weak K-spar alteration; 1-2% disseminated po and minor quartz-po and minor chalcopyrite veinlets.
23.3-24.7	as above - 10-15% quartz as veinlets and replacement of sediments; less banded metasediments; some felsic fine grained zones with granular accumulations of po forming blebs and streaks to 2-3% over 2-3cm.
24.7-26.0	as above - locally carries 5% brown biotite which is occasionally

altered to a gold color.

26.0-28.8 as above - less than 1% po; local breccia zones (3-10 cm); predominantly feldspar sub-porphyry; chlorite wisps occasionally show hornblende form; weak allignment of phenocrysts; calcite $\pm$ chlorite on fractures.

28.8-30.2 feldspar porphyry - anhedral to euhedral white feldspar phenocrysts set in fine grained groundmass with wisps of chlorite; less than 1% disseminated po and minor pyrite; minor K-spar.

30.2-31.6 banded and brecciated metasediments - grey to brown (where biotite increases); 2-3% finely disseminated and occasional veinlet or fracture coating po; abundant quartz replacement of beds; few calcite-quartz veinlets; remnant bedding at 5-10° but likely is moved on fractures.

31.6-33.1 interbedded feldspar porphyry and grey banded metasediments as above; minor movement (to 1cm) along ~90° chloritic fractures; 0.5-1% disseminated and veinlet pyrrhotite at 20-25°.

33.1-34.4 as above: more breccia and attitude is 40° though it varies with degree of recrystallization and brecciation; 10-20% quartz is distinct replacement bands and in groundmass; less than 1% po; minor py; very chloritic and heavily fractured.

34.4-34.95 10cm. quartz and calcite and minor chlorite and pyrite in a chloritic green black pyritic breccia zone; carbonaceous bands with pyrite; calcite-chlorite veinlets $\pm$ quartz.

34.95-37.8 gneiss - medium grained quartz-feldspar with wisps of chlorite and 5-10% brown altered biotite in groundmass; 1% disseminated po; minor py along quartz-calcite and black very fine grained mineral (?)

37.8-39.1 brecciated and altered metasediments cut by vertical ~45° and 20° fractures - chloritic $\pm$ graphite and pyrite; minor disseminated po.

39.1-40.6 graphitic - pyritic breccia zone - 20-30% graphite and 1% pyrite and calcite; minor quartz-chlorite.

40.6-41.2 same except much less graphite - transition to banded metasediments.

41.2-42.3 grey - grey-white banded metasediments; local narrow brecciated ± graphite zones; less than 1% veinlet py and 1% disseminated and veinlet po; dip 0° - 10°; 1-2cm. quartz bands locally; minor biotite; chlorite and calcite on fractures; minor movement on -90° (45° true) fractures (0.5-1.0cm.).

42.3-42.98 same as 40.6-41.2 - brecciated metasediment; 10% graphite locally on fractures.

42.98-44.2 as above.

44.2-53.1 banded metasediments - grey to brown (biotitic) to pale green (chloritic) massive, very fine grained, locally gneissic (5-15cm.), no visible pyrite; disseminated and stratiform po less than 1% but locally 1-2% over 2-3cm; dominantly brown; little or no quartz veining.

53.1-61.4 gneiss - poorly to non-foliated; biotite - chlorite - feldspar (occasionally subhedral) - quartz; less than 1% disseminated po; rare thin py-quartz veinlets; trace of fine grained grey metallic MoS_2(?); breccia zones: 55.0-56.1 and 60.1-60.4 (at 35°-45°) and disseminated K-spar; chlorite and calcite on fractures; minor pyrrhotite.

61.4-66.0 banded metasediments - grey to brown (biotitic); few 2-4cm. breccia zones with quartz-calcite-chlorite - minor po; rare py-chlorite veinlets; graphitic chloritic breccia zone at 63.9-64.3; local zones of subgneiss - biotite - chlorite - quartz - feldspar; fine to medium grained; dip at 30°-35°.

66.0-69.5 brecciated metasediment - graphitic-chloritic zones at 66.8-67.1; 68.3-68.58; 69.0-69.2; pyritic (1%) partially silicified breccia; zone generally carries 1-2% finely disseminated po and is locally biotitic; abundant chlorite in matrix of breccia zones; talc locally on slickenside fractures.

- End of Hole -

D.D.H-K-81-3:

Bearing: 51°
Dip test: -45°
Location: 7+80E/1+90S

Total Depth: 150.88m. Logged by: G.L. Garratt.
Collared : March 6/81.
Completed : March 8/81.

Depth(m)	Description
0-3.96	casing.
3.96-11.3	fine - medium grained gneiss - non segregated, very weak foliation; biotite (altered brown) and chlorite in groundmass; occasional subhedral phenocrysts of feldspar; 0-1% disseminated and veinlet po; oxidation to 13m. marked by iron oxides coating fractures; foliation - remnant bedding at 15-20°.
11.3-11.9	breccia - 1-5cm. angular fragments of banded altered metasediments in locally chloritic and/or siliceous grey matrix; occasionally gneissic medium grained matrix; 1% pyrite with grey siliceous zones.
11.9.15.4	gneiss and local metasediments - as above.
15.4-16.82	breccia as above - grey to grey-black siliceous veining with pyrite along fractures; the breccia appears to be tectonic - fracture offsets create fragments and openings for fluids which create further brecciation; chloritic gouge at bottom of breccia.
16.82-19.2	banded metasediments - fine grained, brown biotitic to pale green (minor chlorite) to grey (dominant); 1% disseminated and fracture coating pyrite; bedding at 15-20°.
19.2-25.3	banded metasediments as above - up to 10cm. wide quartz veins and minor po and py at 21.1-21.6 with po and minor K-spar on perimeter; white quartz with pink K-spar streaks and dark grey contact or border zone (0.5-1.0cm).
25.3-30.0	interbedded subgneiss (poorly recrystallized - irregular thin zones) and brecciated to heavily fractured metasediments; chlorite along fractures and in matrix; very calcareous; minor to 1% disseminated po; local silicification with trace to minor py ± minor K-spar (2-5cm. zones); local breccia zones with minor graphite and py (as at 29.7-30.0).

30.0-33.3 fine - very fine grained altered sediment - no banding apparent except locally where medium grained gneiss occurs; heavily fractured at -90° (45° true) and pyrite veining locally - best developed at 32.5-33.0; minor disseminated po.

33.3-35.4 light to dark grey banded metasediments; 1% disseminated po; 2% over 2cm. zones occasionally; minor K-spar, biotite and chlorite locally; few thin zones of gneiss.

35.4-41.4 subgneissic - locally siliceous metasediments; locally subporphyritic to porphyritic; grey feldspar - quartz ± chlorite; finely disseminated po and chlorite and calcite and pyrite on fractures; minor K-spar with quartz; minor chalcopyrite with po.

41.4-42.4 breccia - angular brown - dark grey and green fragments set in quartz-feldspar ± chlorite or minor biotite matrix; quartz vein at 45°; calcite and chlorite fracture coating.

42.4-44.8 gneiss - quartz - feldspar - chlorite; 1% disseminated po and minor chalcopyrite.

64.8-45.5 quartz vein - milky white and minor po, trace chalcopyrite; minor chlorite and calcite on fractures; vein at 45°.

45.5-47.5 gneiss as above.

47.5.47.8 heavily pyrrhotized zone parallel at 45°; contact with potassic quartz zone; heavily fractured at -90° and -45°; minor graphite on steep fractures.

47.8-49.38 K-spar - quartz alteration zone - grey - white and pink sections; some banded grey metasediments; minor medium grained gneiss; zones of 1-2cm. of 2-3% po; py on calcareous fractures; minor chalcopyrite with po.

49.38-51.6 banded brown biotitic metasediment with 2-3% finely disseminated po grading into white to grey siliceous zone - quartz-feldspar ± biotite, chlorite, K-spar; minor calcite-quartz veining; 1-2% po.

51.6-58.7 intercalated gneiss - commonly subporphyritic quartz-feldspar ± biotite-chlorite with 1-2% disseminated po and metasediments - grey to brown, fine grained with occasional thin siliceous bands; dip 15-20°; calcite and chlorite ± po on fractures; gneiss is a

hornblende porphyryat 52.1-52.3 - euhedral hornblende phenocrysts in a dark grey-green fine grained groundmass - hornblende partially chloritized and occasionally altered to biotite; occasional thin quartz-K-spar bands and minor disseminated K-spar ± quartz-po; 54.7-54.9 - subporphyritic gneiss with quartz-Kspar and po and minor chalcopyrite - chloritic green; 55.9-56.5 - chloritic grey to greenish metasediments cut by chlorite-pyrite fractures and quartz and feldspar and py veinlets; graphite on some fractures.

58.7-59.6 dark grey very fine grained metasediments; banding only occasionally visible; cut by numerous py, quartz-py ± po veinlets and fracture coatings at 45°, 15-20°, 85°; graphite on few fractures; 1-3% sulphide; very chloritic slickensided fractures.

59.6-61.27 subgneissic (anhedral phenocrysts) to thin bands of remnant metasediments; cut by py and quartz veinlets; 1-2% py and po; 61.15-61.27 - fault gouge - grey powdery clay surrounding fragments of bleached metasediments.

61.27-63.4 as above, pyritization - fractures and veinlets - extends to 62.4; increase in biotite from 62.4 downward.

63.4-65.4 dark grey to white thin banded metasediments; 1% finely disseminated po; minor K-spar as fine disseminations; 1% disseminated py and po.

65.4-77.5 grey to white banded (thin bedded) metasediments cut by py ± feldspar ± calcite veinlets; brecciated at 65.4-67.6; 72.2-72.5, 73.4-77.4 with local zones being more pyritic and broken than others; py ± po = 1-2% and 3% locally; graphite common in heavily fractured and/or breccia zones as at 73.1-73.75 and 66.0; chlorite and calcite on fractures; pyrite often occurs as euhedral, 1-2mm. cubes.

77.5-89.92 grey-brown-green blotchy colored metasediments; fractured and healed by quartz or calcite-chlorite veinlets; 0.5-1.0% finely disseminated po; brown color = biotitic zones or beds; green = chlorite; indurate, very fine grained.

89.92-91.7 grey to black graphitic + 0.-1.5% py and minor po - breccia; po disseminated along disturbed (moved) bedding to 1%.

91.7.100.0 as above but with minor pyrite and local po to 1% and biotitic siliceous zones with minor graphite; graphite locally up to 5% over 3cm.

100.0-105.0 grey-green-brown metasediments as above breccia zone; dip generally at 45° offset 0.5cm. on a few fractures; very fine grained; less than 1% sulphide; local fine to medium grained gneissic zones.

105.0-117.0 predominantly gneiss - subporphyry grading to dioritic feldspar porphyry at 106.5; subhedral white feldspar phenocrysts set in a fine grained groundmass of chlorite, biotite, minor quartz and feldspar; 0.5-1% finely disseminated po; occasional 1-2cm. quartz ± K-spar veins with 0-1% po as coarse granular accumulations; occasional 2-5cm. breccia zones with chloritic matrix; bedding or foliation rarely visible.

117.0-119.4 grey-white-brown banded metasediment at 45°; 1% disseminated po locally and rare 0.3cm. bands carry 2-3% po; fine to very fine grained.

119.4-120.0 graphitic breccia - angular grey fragments to 2cm. in graphitic matrix.

120.0-121.0 quartz vein - streaks and blebs of chalcopyrite; chloritic fractures; 120.7-120.9 = 2-4% sphalerite and 1% chalcopyrite and minor galena; talc on chlorite.

121.0-133.4 dark to light grey (occasionally white or brown) banded to massive, fine to very fine grained metasediments; occasional quartz-pyrite-K-spar zones (1-5cm.); local pyritic zones up to 1% sub to euhedral py; dips where visible at 45°; locally graphitic; 122.9- 1cm. band of 20-30% po; 2% disseminated po locally and 1% py and calcite on fractures; 130.0-130.1=2-3% sphalerite, trace chalcopyrite, minor galena.

133.4-135.7 felsic zone - quartz, feldspar; abundant (5%) K-spar as blotchy anhedral alteration; 2-4% disseminated and granular aggregates of po; minor chlorite; occasional 1-3mm. quartz veinlets; rare banding at 25-30°; minor chalcopyrite; trace sphalerite; white prismatic-pearly lustre-mineral locally - zeolite(?).

135.7-137.1 breccia - green, chloritic to black matrix hosting white-grey to black angular to sub-rounded fragments; locally grey-siliceous; locally carries 2-3% disseminated po; 1% py in veinlets and matrix.

137.1-142.4 green and brown (grey-brown) alternating thin banded to massive

blotchy - colored metasediments; less than 1% po; more chloritic where fracture density increases; bedding, where visible, dips 25-30°; 5-10cm. zones of subgneissic metasediments; vertical (-45° true) quartz vein with a chloritic border at 140.6-141.1.

142.4-144.5 gneiss - feldspar porphyry; white anhedral to subhedral feldspar phenocrysts set in a fine grained groundmass of chlorite and biotite; trace to minor amounts of po; calcite and chlorite on some fractures.

144.5.150.88 same as 137.1-142.4.

- End of Hole -

D.D.H-K-81-4:

Bearing: 10°
Dip test: -45°
Location: 5+15E/0+6N

Total Depth: 76.51m. Logged by: G.L. Garratt.
Collared : March 8/81.
Completed : March 9/81.

Depth(m)	Description
0-3.96	casing.
3.96-15.39	brown, green and grey metasediments - banded to brecciated to subgneissic to massive - fine grained; less than 1% finely disseminated po locally; pyrite along quartz-feldspar veinlets to 1% - usually along high angle (60-90°) fractures; banding where visible at 40°; breccias are zones of heavy fracturing, minor rotation and subsequent fracture filling; oxidation level is 7.6 meters as marked by iron oxides on fracture surfaces.
15.39-26.0	as above only more siliceous - very fine grained with fewer biotitic-brown beds; local felsic: quartz-feldspar ± Kspar zones; up to 1% finely disseminated po; minor pyrite except at 15.39-16.0 where 1-2% disseminated and veinlet euhedral pyrite occurs.
26.0-27.1	feldspar porphyry - white sub-anhedral feldspar phenocrysts set in a fine to very fine grained chloritic-biotitic groundmass; minor po.
27.1-39.5	metasediments - thin bedded to laminated; very fine grained; grey and white on top half - getting browner and more biotitic in lower half where po increases to 1% - finely disseminated; thin (5-10cm) felsic bands (quartz -Kspar) locally; py locally (32.8-33.2); beds dip at 35-45°; phenocryst development to a subgneissic texture occurs in a few 5-10cm. zones; hardness of sediments is about 4-5.5.
39.5-59.3	metasediments - heavily fractured and altered - bedding or banding rarely visible; varies from grey to green - chloritic fractured rock with a few graphite coated fractures and thin (5-10cm.) quartz-feldspar ± K-spar (minor po - py) bands - intergrown anhedral feldspar-quartz ± minor chlorite; pyritic zone (1-2%) at 41.5-41.9 - veinlet and disseminated pyrite in a very fine grained, dark grey rock; 46.9-47.1 - quartz-feldspar and minor py; 49.7-50.6 - quartz-K-spar bound by dark grey fractured metasediment and minor py; 53.65-55.1-1-3% py in narrow veinlets and as fracture coatings with

with chlorite and minor graphite; po is finely disseminated to 2% - generally less than 1% and occurs with py in veinlets and/or fracture coating.

59.3-61.31 subporphyritic - close packed poorly developed anhedral feldspar phenocrysts in a fine grained chloritic groundmass; minor amounts of disseminated K-spar; trace po.

61.31-70.3 grey to green grey, highly fractured and locally silicified zone; banding/bedding rarely visible (45°); several pyritic zones related to quartz-py veins and quartz-calcite-py (± po) veinlets and fracture coatings; minor K-spar; minor to 1% po; quartz veins at 63.4-64.2- milky white and 1-2% py; 66.9-67.4 - 2 or 3 thin (1-2cm.) quartz-py veinlets at 60-65°; this section is quite calcareous - especially veins and fractures.

70.3-76.51 feldspar - chlorite - biotite subgneiss - non foliated, weak segregation of chlorite-biotite locally; less than 0.5% po; equidimensional - anhedral phenocrysts.

- End of Hole -

D.D.H-K-81-5:

Bearing: 10°
Dip test: -60°
Location: 5+50E/0+12S

Total Depth: 127.71m. Logged by: G.L. Garratt.
Collared : March 9/81.
Completed : March 10/81.

Depth(m)	Description
0-3.0	casing.
3.0-18.5	gneiss - variable banding or foliation only visible occasionally at 40-45°; less than 1% disseminated py; anhedral feldspar in a chloratic or chlorite and biotite groundmass; quartz-feldspar - calcite and minor py veinlets at 70-80° at 8.2-9.1; 12.6-13.11; 15.39-17.3 - not heavily pyritized nor silicified.
18.5-29.0	banded metasediments - biotitic brown at top grading to inter-banded grey-green-brown 0.5-1cm. bands; minor disseminated po; py; 5-10cm. breccia zones occasionally; minor pale brown to beige sphalerite and quartz and calcite and chlorite in an 0.5cm. vein at 21.0; quartz and minor chlorite vein at 45° at 22.4-2.3.0; quartz calcite and minor pyrite and talc at 25.3-25.7 (pale green talc).
29.0-31.7	bleached and locally brecciated banded metasediments; white to grey to pale green or buff; minor disseminated py on a few fractures - calcite - chlorite; attitude - 30-40°.
31.7-33.8	feldspar porphyry - biotite-chlorite gneiss; minor disseminated po; sub-anhedral white feldspar phenocrysts and brown altered biotite.
33.8-41.3	chloritic breciatted metasediments; and few banded metasediments locally (15-20cm.); minor py - quartz - calcite - chlorite veinlets at -90°, -70°, -45° and 10° (± po); minor disseminated po; occasional 5-15cm. quartz-Kspar felsic zones; chlorite and calcite on fractures; minor graphite.
41.3-43.3	banded metasediments - buff-brown-grey; pyritized along - 70° and 90° chloritic fractures.
43.3-44.9	breccia - angular to subrounded fragments (0.2-1.0cm.); biotitic-brown, grey, black; anhedral to subhedral pyrite in matrix up to 2% - generally 1%.

44.9-46.9	grey-brown to brown very fine grained metasediments; dip 45°; minor pyrite along - 10°, 45° and 70° fractures and veinlets (peripheral to breccia zone above and pyritic zone below).
46.49.5	grey, very fine grained banded to massive metasediments at 45-50° with 1-2% sub-euhedral py disseminated along veinlets and fractures subparallel to banding and at 20°; locally see py and po and minor chalco-pyrite; graphitic; 2 or 3 - 1cm. quartz veins at 45°.
49.5-52.1	grey crumbly zone - with quartz calcite vein at 45° at 49.6-49.9 (2-3 veins x 2-4cm.); 1-2% py; abundant chlorite - graphite; breccia at 50.7-51.1 - graphitic - crumbly.
52.1-66.0	banded grey to light brown metasediments with narrow bands of biotitic-chloritic gneiss; minor disseminated po.
66.0-78.6	predominantly biotitic gneiss with thin zones of brown-grey banded metasediments at 20-30°; calcite veining along - 70-90° fractures.
78.6-87.2	dark grey massive heavily fractured very fine grained metasediments with 1-2% veinlet py ± po; locally intense fracturing gives breccia appearance; calcite and calcite-chlorite veinlets and fracture coatings; graphite occasionally on fractures; quartz rich vein at 65° at 85.3-85.6.
87.2-93.1	breciatted and locally silicified - sulphide poor; fragments to 3-4cm., essentially fractured and rotated metasediments; healed by calcite; subgneissic towards lower contact.
93.1.108.9	as above but with 1% py along fractures and veinlets at 70-90°; 3-4% py along banding at 96.3-97.3 and quartz and Kspar; graphitic fractures locally; quite siliceous over short intervals; more pyrite in more heavily fractured/brecciated zones.
108.9-125.4	as above only more chloritic, locally biotitic; minor py locally along quartz - calcite ± chlorite veinlets.
125.4.127.71	bleached - grey metasediment; quartz-feldspar vein and po and py at 126.6-127.2; minor chlorite and calcite.

- End of Hole -

D.D.H-K-81-6

Bearing: 352° Total Depth: 81.4m Logged by: G.L. Garratt.
Dip test: -60° Collared : March 11/81.
Location: 2+04E/0+80S Completed : March 12/81.

Depth(m)	Description
0-3.66	casing.
3.66-30.1	poorly to nonfoliated quartz diorite-granodiorite; 10-15% chloritized mafics and epidote locally; quartz-feldspar groundmass, locally porphyritic - visible where bleached as white euhedral feldspar phenocrysts; minor amounts of disseminated py; quartz-K-spar alteration locally along thin 70-90° veinlets and occasional 2-15cm. bleached zones; light iron oxide coatings on fractures.
30.1-31.7	quartz-feldspar-pyrite (less than 1%) vein with an epidotized to brecciated-pyritic upper aureole; epidote zone grades down to breccia to vein.
31.7.33.07	weakly altered granodiorite with 3 or 4 x 1cm. quartz-feldspar ± epidote and minor pyrite veins at 60-70°.
33.07.38.0	felsite zone - white quartz-feldspar with minor pyrite disseminated along 60° greyish to black streaks with minor epidote; quartz-Kspar increases and pyrite decreases from 35.56 with a slight increase in epidote.
38.0-40.9	granodiorite.
40.9-42.0	quartz-Kspar felsic zone - minor pyrite and chlorite.
42.0-54.7	granodiorite - chloritic mafics (5-10%) and epidote; minor pyrite; chloritic fractures; medium grained.
54.7-59.5	quartz-Kspar felsic zone - 2-3% chloritized mafics.
59.5-62.5	granodiorite.
62.5-58.3	quartz-Kspar felsic zone.
58.3-65.2	granodiorite to very chloritic fine grained rock.
65.2-66.0	quartz vein - milky white, massive; minor pyrite; contact attitude not visible but fractures are strong at 10-15°.

66.0-67.8 dioritic feldspar porphyry - white sub-euhedral feldspar phenocrysts in a fine grained chloritic groundmass.

67.8-70.41 granodiorite - quartz monzonite - grey to pinkish; medium grained; sub-euhedral white feldspar; anhedral, locally chloritized mafics (1-5%); grey quartz in groundmass; local blotches and phenocrysts of K-spar.

70.4-81.38 dioritic feldspar porphyry - fine to medium grained, chloritic - as above; coarser towards the end of the hole; fine to very fine grained andesitic zone at 72.7-76.4 - cut by few quartz $\pm$ pyrite $\pm$ epidote veinlets; 77.6-78.3 - bleached quartz-feldspar zone - sub-euhedral white feldspar in a fine to very fine grained quartz-feldspar groundmass with traces of chlorite.

- End of Hole -

D.D.H-K-81-7

Bearing: 352° Total Depth: 117.65m. Logged by: G.L. Garratt.
Dip test: -60° Collared : March 12/81.
Location: 2+48E/1+11S Completed : March 14/81.

Depth(m)	Description
0-3.66	casing.
3.66.5.6	clay altered intrusive; buff-pink, fine grained; quartz-Kspar - epidote on fractures; minor hematite on a few fractures; trace to minor pyrite.
5.6-7.9	weakly to non-foliated granodiorite; pervasive Kspar-quartz ± chlorite alteration along veinlets; trace pyrite; minor epidote.
7.9-10.21	quartz-Kspar-py breccia flanked by gouge on the lower contact and clay-Kspar-epidote-pyrite alteration above - clay occurs as a powdery talcy pale green material.
10.21-12.0	epidotized, chloritized granodiorite.
12.0-14.0	30 cm. quartz vein flanked by clay gouge - grades downward to clay altered intrusive to quartz-Kspar-chlorite felsitized intrusive to propylitically altered (chlorite-epidote-minor Kspar) intrusive.
14.0-26.2	chloritized, epidotized granodiorite as above; 1-3 cm. quartz - K-spar veins occasionally; 0.2 cm. epidote veinlets; 23.5-25.0 - 90° fractures with chlorite.
26.2-28.4	fine grained dark green chloritic andesite dyke at 45-55°; epidote veinlets; trace pyrite.
28.4-65.3	chloritized granodiorite - as above - irregular intergrowth of anhedral quartz-feldspar-chloritized mafics; approximately every 2m. occurs 5-30 cm. quartz-Kspar felsic zones which show weak porphyritic texture; pyritic zone (0.5-1.0%) as disseminations and veinlets at 37.5-41.0; 1-2 x 3-15cm. quartz monzonite dykes from 43.0 down - less than 2% mafics, sub-porphyritic quartz-feldspar-pink to buff to white;48.6-48.9 - iron oxide on fracture (groundwater channel(?); weak foliation at 65-70°; secondary brown biotite on chlorite at 55.2-58.8; 1% pyrite at 52.7-58.8; foliation varies 40-60°.

65.3-69.3 Dyke (?) - quartz monzonite - quartz-feldspar porphyry (weakly developed) with subhedral feldspar phenocrysts and sub-anhedral partially to completely chloritized hornblende commonly as stubby crystals; up to 5% mafics; very fine grained grey groundmass; same as several dykes (5-30cm.) as mentioned above; quartz-feldspar vein with angular grey quartz fragments at 68.3-68.7; lower contact at 10^{o} against 90^{o} foliation of underlying diorite-granodiorite; almost all contacts with monzonite dykes are $0-15^{o}$.

69.3-85.7 same as 28-65 - more dioritic; monzonite dykes more closely approach granite (82.2-82.4); foliation at $70-90^{o}$; minor secondary biotite.

85.7-88.09 fine grained andesite porphyry - dark green chloritic; sub-euhedral 1-2mm. feldspar in a very fine grained groundmass of chloritized anhedral mafics and quartz-feldspar.

88.09-93.6 altered (locally see remnant porphyry) intrusive - pale green to grey, cut by numerous 1-3cm. quartz veins at $40-50^{o}$ - heavily pyritized with 1-3% disseminated and quartz-py vein euhedral pyrite; locally altered to soft grey to grey-green clay - pyrite material; very chloritic locally - especially on fractures.

93.6-94.7 white, massive quartz vein - up to 1% disseminated euhedral pyrite.

94.7-95.1 gouge - pyritic and broken chloritic core fragments - 50% recovery.

95.1-117.65 same as above 93.6 - dioritic foliated intrusive cut by thin monzonitic dykes.

- End of Hole -

D.D.H-K-81-8:

Bearing: 0° Total Depth: 94.49m Logged by: G.L. Garratt.
Dip test: -60° Collared : March 14/81.
Location: 1+50E/1+10S Completed : March 16/81.

Depth(m)	Description
0-3.01	casing.
3.01-3.46	ground core - poor recovery - weathered diorite intrusive.
3.46-18.8	foliated quartz diorite at 70°; chloritized (and locally altered to biotite) anhedral mafics intergrown with medium grained quartz-feldspar set in a very fine grained groundmass; local dykes of quartz monzonite - 2-20 cm. wide - subporphyritic feldspar phenocrysts set in a very fine grained groundmass with less than 5% mafics - contact at 60-70°.
18.8-21.95	quartz-monzonite - barely visible white feldspar phenocryets set in a very fine grained quartz-feldspar groundmass; less than 5% anhedral mafics - partially chloritized; cuts diorite at 75°; minor K-spar disseminated locally and on fractures with calcite.
21.95.38.7	foliated quartz diorite and minor quartz monzonite as above; white euhedral feldspar visible locally.
38.7-41.15	diorite - fine to medium grained darker version of above - non-foliated - could be a dyke; quartz monzonite porphyry at upper contact and quartz - feldspar vein at lower contact; minor epidote with chlorite-quartz-feldspar vein at -80°.
41.15-50.7	foliated diorite as above; Kspar alteration on rare occasion with vein material or in minor amounts in vein breccia; monzonite dykes at 35-50° and 65°; minor iron oxides on fractures at 10-20°, 45° and 80°.
50.7-55.8	quartz-monzonite-porphyritic zones with 0.2-0.3cm. subhedral hornblende; pink Kspar alteration along fractures and calcite veinlets and minor chlorite; contact at 60°.
55.8-66.4	diorite - foliated as above: 59.8-60.9 - pyritic zone - 1% disseminations and fracture coating; minor subhedral magnetite with carbonate (zeolite?); vein at 63.9 (15 cm.); crystalline open space

filling zeolite veins locally - no reaction with HCI, prismatic crystals with long axio striae and oblique truncations as well as coarse subhedral grains; foliation at 70^{o}.

66.4-73.5 quartz-monzonite - pink to grey; sub-porphyritic; chilled upper contact with diorite; weakly chloritized sub-anhedral hornblende; anhedral feldspar; pink to grey very fine grained groundmass.

73.5-91.5 foliated diorite with 5-30cm. dykes of grey to pale pink quartz monzonite porphyry; minor epidote locally; generally chloritic.

91.5-94.49 fine to very fine grained, grey to dark grey-green andesite dyke(?); chloritic - especially on fractures; epidote and quartz and carbonate on fractures and veins; minor pyrite.

- End of Hole -

APPENDIX 2 : ASSAY AND GEOCHEMICAL ANALYSES

CHEMEX

CALGARY 2021 - 41 AVE. N.E. CALGARY, CANADA T2E 6P2
TELEPHONE (403) 276-9627 TELEX 038-25541
EDMONTON 6112 DAVIES ROAD, EDMONTON, CANADA T6E 4M9
TELEPHONE (403) 465-9877 TELEX 037-41596

CERTIFICATE OF ANALYSIS

• MINERAL • GAS • WATER • OIL • SOILS • VEGETATION • ENVIRONMENTAL ANALYSIS

Kelvin Energy Ltd.

DATE March 10, 1981.

Drill Core Assays

PROJECT NO. 9648-1-2789

LOCATION	CU%	PB %	ZN %	AG OZ/TON	AU OZ/TON
K-1	<0.01	<0.01	0.01	<0.01	<0.003
-2	<0.01	<0.01	0.01	<0.01	<0.003
-3	0.01	0.01	0.05	0.05	0.005
-4	0.01	0.02	0.31	0.30	0.26
-5	<0.01	0.01	0.05	0.04	0.007
-6	0.01	<0.01	0.01	<0.01	0.007
-7	0.01	<0.01	0.02	0.01	<0.003
-8	0.01	<0.01	0.02	<0.01	<0.003
-9	0.01	<0.01	0.01	<0.01	<0.003
-10	0.01	<0.01	0.01	<0.01	<0.003
-11	0.01	<0.01	0.01	<0.01	<0.003
-12	0.01	<0.01	0.01	0.01	<0.003
-13	0.01	<0.01	0.01	<0.01	<0.003
-14	0.01	<0.01	0.02	0.01	<0.003
-15	0.01	<0.01	0.01	<0.01	<0.003
2016	0.01	<0.01	0.02	<0.01	<0.003
2017	0.01	<0.01	0.01	0.01	<0.003
2018	0.01	<0.01	0.01	<0.01	<0.003
2019	0.01	<0.01	0.01	0.01	<0.003
2020	0.01	<0.01	0.01	0.04	<0.003
2021	0.01	<0.01	0.01	0.01	<0.003
2022	0.01	<0.01	0.01	0.01	<0.003
2023	0.01	<0.01	0.01	0.02	<0.003
2024	0.01	<0.01	0.01	0.01	<0.003
2025	0.01	<0.01	0.02	0.01	<0.003
2026	0.01	<0.01	0.01	0.01	<0.003
2027	0.01	<0.01	0.02	0.03	<0.003
2028	0.01	<0.01	0.01	0.01	<0.003
2029	0.01	<0.01	0.01	<0.01	<0.003

CTA MEMBER CANADIAN TESTING ASSOCIATION

Certified by .....

CHEMEX

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CERTIFICATE OF ANALYSIS

• MINERAL • GAS • WATER • OIL • SOILS • VEGETATION • ENVIRONMENTAL ANALYSIS

KELVIN ENERGY LIMITED

DATE MAR. 13, 1981

CORE ANALYSES

PROJECT NO. 9648-1-2516

LOCATION	CU PPM	ZN PPM	AG PPM	AU PPB
2030	70.0	47.0	1.3	-10.0
2031	101.0	267.0	0.5	-10.0
2032	92.0	799.0	0.9	-10.0
2033	57.0	964.0	0.6	-10.0
2034	110.0	928.0	0.7	-10.0
2035	72.0	726.0	0.3	-10.0
2036	68.0	82.0	0.4	-10.0
2037	55.0	419.0	0.4	-10.0
2038	71.0	213.0	-0.1	-10.0
2039	85.0	77.0	-0.1	-10.0
2040	93.0	132.0	0.5	-10.0
2041	72.0	144.0	0.5	-10.0
2042	112.0	133.0	-0.1	-10.0
2043	125.0	502.0	0.3	-10.0
2044	86.0	448.0	-0.1	-10.0
2045	70.0	91.0	-0.1	-10.0
2046	85.0	148.0	0.9	-10.0
2047	50.0	139.0	-0.1	-10.0
2048	53.0	97.0	-0.1	85.0
2049	105.0	387.0	0.5	-10.0
2050	53.0	137.0	-0.1	-10.0
2051	44.0	281.0	-0.1	-10.0
2052	53.0	400.0	-0.1	-10.0
2053	38.0	58.0	-0.1	-10.0
2054	91.0	46.0	0.3	-10.0
2055	145.0	126.0	-0.1	-10.0
2056	66.0	73.0	-0.1	-10.0
2057	128.0	50.0	-0.1	-10.0
2058	96.0	77.0	-0.1	-10.0
2059	13.0	44.0	-0.1	-10.0
2060	10.0	40.0	-0.1	-10.0
2061	83.0	118.0	1.3	-10.0
2062	72.0	69.0	0.8	-10.0
2063	54.0	45.0	0.7	-10.0
2064	128.0	110.0	1.0	-10.0
2065	66.0	82.0	0.9	-10.0
2066	64.0	270.0	-0.1	-10.0
2067	96.0	52.0	-0.1	-10.0
2068	140.0	126.0	-0.1	-10.0
2069	69.0	59.0	-0.1	-10.0

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KELVIN ENERGY LIMITED

DATE MAR. 13, 1981

PROJECT NO. 9648-1-2516

CORE ANALYSES

LOCATION	CU PPM	ZN PPM	AG PPM	AU PPB
2070	80.0	86.0	<0.1	-10.0

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KELVIN ENERGY LTD

DATE MAR. 23/81

ROCK GEOCHEM ANALYSES

PROJECT NO. 9648-1-C257

LOCATION	CU PPM	ZN PPM	AG PPM	AU PPB
2071	145.0	1857.0	175.0	-10.0
2072	64.0	71.0	0.6	30.0
2073	53.0	114.0	0.6	-10.0
2074	72.0	2183.0	5.1	-10.0
2075	90.0	516.0	2.0	-10.0
2076	80.0	301.0	0.8	-10.0
2077	103.0	973.0	2.0	-10.0
2078	158.0	1006.0	0.9	-10.0
2079	47.0	459.0	-0.1	-10.0
2080	61.0	125.0	-0.1	-10.0
2081	43.0	50.0	0.5	-10.0
2082	67.0	112.0	0.6	-10.0
2083	75.0	310.0	4.6	-10.0
2084	85.0	981.0	0.7	-10.0
2085	175.0	129.0	0.5	-10.0
2086	100.0	91.0	0.7	-10.0
2087	89.0	86.0	0.8	-10.0
2088	75.0	31.0	0.6	-10.0
2089	139.0	1681.0	8.4	-10.0
2090	135.0	124.0	1.2	-10.0
2091	61.0	57.0	0.4	-10.0
2092	114.0	85.0	0.3	-10.0
2093	105.0	45.0	2.8	-10.0
2094	76.0	106.0	0.4	-10.0
2095	11.0	17.0	-0.1	-10.0
2096	263.0	248.0	0.7	-10.0
2097	120.0	89.0	0.2	-10.0
2098	95.0	68.0	0.2	-10.0
2099	72.0	60.0	-0.1	-10.0
2100	88.0	122.0	1.0	-10.0
2101	115.0	104.0	0.6	-10.0
2102	80.0	114.0	0.8	10.0
2103	112.0	118.0	0.9	-10.0
2104	138.0	1445.0	0.4	-10.0
2105	67.0	265.0	3.2	-10.0
2106	73.0	150.0	0.5	-10.0
2107	79.0	150.0	0.3	-10.0
2108	89.0	542.0	2.3	-10.0
2109	112.0	334.0	0.2	-10.0
2110	59.0	120.0	0.3	-10.0

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KELVIN ENERGY LTD

DATE MAR. 23/81

ROCK GEOCHEM ANALYSES

PROJECT NO. 9648-1-C257

LOCATION	CU PPM	ZN PPM	AG PPM	AU PPB
2111	58.0	174.0	0.4	-10.0
2112	96.0	393.0	0.4	-10.0
2113	50.0	96.0	0.3	-10.0
2114	148.0	1582.0	16.4	-10.0
2115	4520.0	31900.0	326.0	1150.0
2116	124.0	374.0	10.3	-10.0
2117	118.0	148.0	1.3	-10.0
2118	78.0	187.0	0.6	-10.0
2119	76.0	264.0	1.1	-10.0
2120	58.0	611.0	0.7	-10.0
2121	84.0	399.0	1.7	-10.0
2122	123.0	16420.0	10.8	-10.0
2123	88.0	447.0	0.7	-10.0
2124	79.0	523.0	0.4	-10.0
2125	80.0	83.0	0.5	-10.0
2126	63.0	223.0	0.7	-10.0
2127	117.0	1021.0	0.6	-10.0
2128	109.0	376.0	0.7	-10.0
2129	38.0	54.0	-0.1	-10.0
2130	108.0	102.0	0.2	-10.0
2131	104.0	165.0	0.8	-10.0
2132	100.0	910.0	1.2	-10.0
2133	74.0	80.0	0.3	-10.0
2134	67.0	54.0	-0.1	-10.0
2135	80.0	162.0	0.8	-10.0
2136	306.0	840.0	0.6	-10.0
2137	6.0	101.0	-0.1	-10.0
2138	157.0	1333.0	0.5	-10.0
2139	119.0	125.0	-0.1	-10.0
2140	79.0	146.0	0.5	-10.0
2141	74.0	380.0	-0.1	-10.0
2142	51.0	1213.0	4.2	-10.0
2143	54.0	151.0	0.2	-10.0
2144	65.0	852.0	1.0	-10.0
2145	52.0	3080.0	1.0	-10.0
2146	37.0	875.0	0.8	-10.0
2147	94.0	412.0	3.3	300.0
2148	53.0	131.0	0.8	-10.0
2149	86.0	125.0	0.5	-10.0
2150	48.0	140.0	0.4	-10.0

CTA MEMBER CANADIAN TESTING ASSOCIATION

Certified by

CHEMEX

CALGARY 2021 - 41 AVE. N.E. CALGARY, CANADA T2E 6P2
TELEPHONE (403) 276-9627 TELEX 038-25541
EDMONTON 6112 DAVIES ROAD, EDMONTON, CANADA T6E 4M9
TELEPHONE (403) 465-9877 TELEX 037-41596

CERTIFICATE OF ANALYSIS

• MINERAL • GAS • WATER • OIL • SOILS • VEGETATION • ENVIRONMENTAL ANALYSIS

KELVIN ENERGY LTD

DATE
MAR. 23/81

PROJECT NO.
9648-1-C257

ROCK GEOCHEM ANALYSES

LOCATION	CU PPM	ZN PPM	AG PPM	AU PPB
2151	79.0	2920.0	3.5	-10.0
2152	29.0	31.0	0.2	-10.0
2153	11.0	590.0	0.3	-10.0
2154	161.0	130.0	0.7	-10.0
2155	79.0	78.0	0.2	-10.0
2156	94.0	80.0	0.2	-10.0
2157	88.0	151.0	0.6	-10.0
2158	125.0	1649.0	2.8	-10.0
2159	178.0	1037.0	1.9	-10.0
2160	64.0	376.0	1.2	-10.0
2161	65.0	235.0	0.9	-10.0
2162	72.0	130.0	0.7	-10.0
2163	62.0	123.0	1.0	-10.0
2164	93.0	103.0	0.5	-10.0
2165	77.0	224.0	0.6	-10.0
2166	56.0	223.0	0.5	-10.0
2167	57.0	156.0	0.3	-10.0
2168	122.0	203.0	0.7	-10.0
2169	86.0	208.0	0.3	-10.0
2170	96.0	243.0	0.4	-10.0
2171	74.0	179.0	0.4	-10.0
2172	104.0	198.0	0.5	-10.0
2173	117.0	207.0	0.2	-10.0
2174	84.0	128.0	0.3	-10.0
2175	92.0	106.0	0.3	-10.0

CTA MEMBER CANADIAN TESTING ASSOCIATION

Certified by Andy Hunt

CHEMEX

CALGARY 2021 - 41 AVE. N.E. CALGARY, CANADA T2E 6P2
TELEPHONE (403) 276-9627 TELEX 038-25541
EDMONTON 6112 DAVIES ROAD, EDMONTON, CANADA T6E 4M9
TELEPHONE (403) 465-9877 TELEX 037-41596

CERTIFICATE OF ANALYSIS

• MINERAL • GAS • WATER • OIL • SOILS • VEGETATION • ENVIRONMENTAL ANALYSIS

KELV[illegible] [illegible]RGY LIMITED

ROCK [illegible] [illegible] ANALY[illegible]S

DATE MAR. 24/81

PROJECT NO. 9640-[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	AG PPM
[illegible]176	<10	[illegible]	[illegible]	<0.1
2177	<10	33	[illegible]	<0.1
2178	<10	[illegible]	[illegible]	<0.1
2179	<10	20	[illegible]	<0.1
[illegible]	<10	[illegible]	[illegible]	<0.1
2181	<10	22	[illegible]	<0.1
2182	<10	5	[illegible]	<0.1
2183	<10	19	[illegible]	<0.1
2184	<10	15	[illegible]	<0.1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2186	<10	37	1[illegible]	<0.1
2187	<10	16	[illegible]	<0.1
2188	<10	[illegible]	[illegible]	<0.1
2189	<10	26	[illegible]	<0.1
[illegible]	<10	[illegible]	[illegible]	[illegible]
219[illegible]	<10	[illegible]	[illegible]	[illegible]
219[illegible]	<10	1[illegible]	[illegible]	<0.1
219[illegible]	<10	1[illegible]	[illegible]	<0.1
2194	<10	7	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2196	<10	[illegible]	[illegible]	[illegible]
2197	[illegible]	[illegible]	[illegible]	[illegible]
219[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
219[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2201	<10	[illegible]	[illegible]	[illegible]

CTA MEMBER CANADIAN TESTING ASSOCIATION

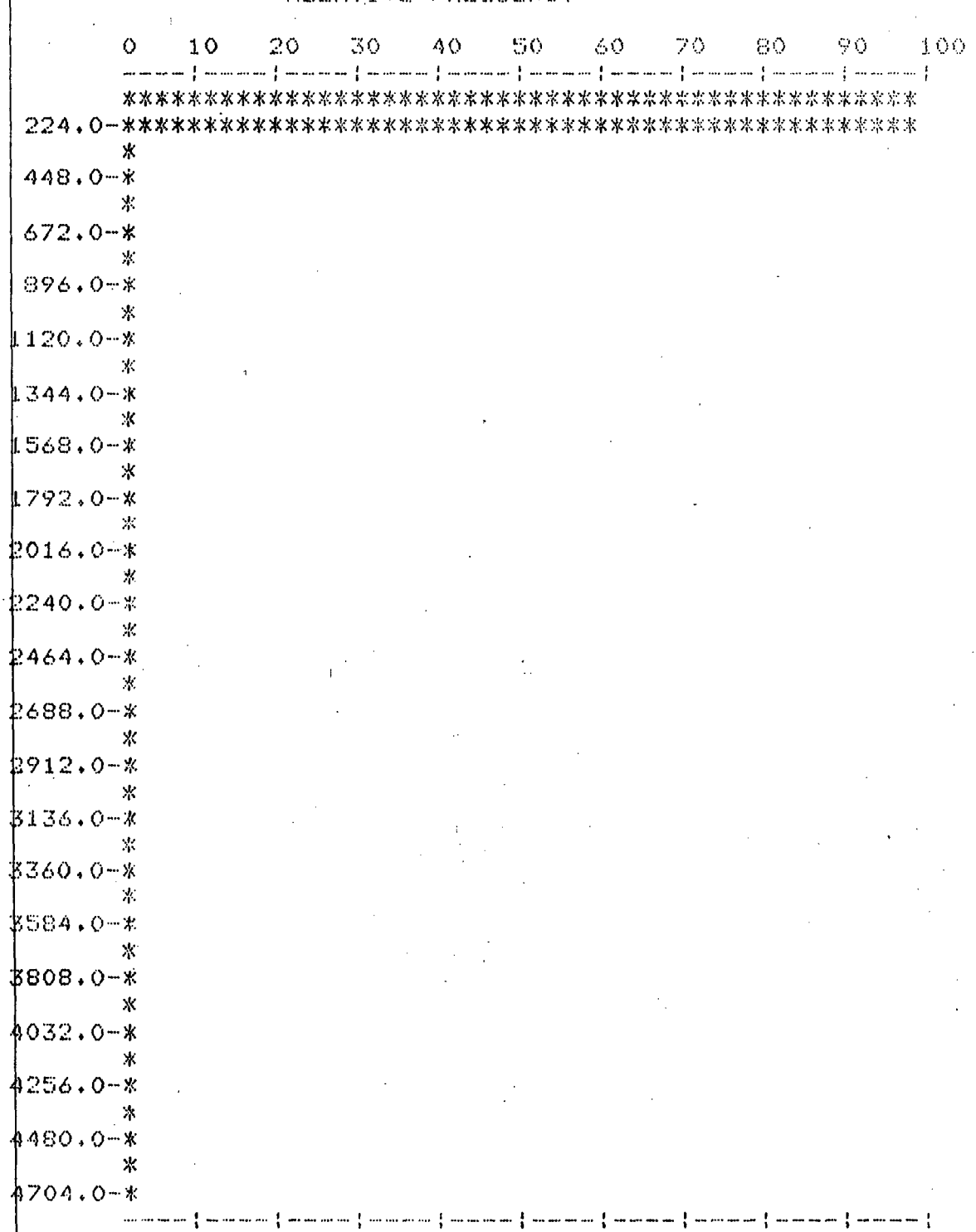
Certified by ......Andy Kent......

DISTRIBUTION OF GROUPED DATA FOR CU

CLASS INTERVAL	INTERVAL MIDPOINT	FREQUENCY	REALTIVE FREQUENCY	CUMULATIVE FREQUENCY	CUMULATIVE FREQUENCY FRACTION
0.- 224.	112.	102	0.971	102	0.971
225.- 448.	336.	2	0.019	104	0.990
449.- 672.	560.	0	0.000	104	0.990
673.- 896.	784.	0	0.000	104	0.990
897.- 1120.	1008.	0	0.000	104	0.990
1121.- 1344.	1232.	0	0.000	104	0.990
1345.- 1568.	1456.	0	0.000	104	0.990
1569.- 1792.	1680.	0	0.000	104	0.990
1793.- 2016.	1904.	0	0.000	104	0.990
2017.- 2240.	2128.	0	0.000	104	0.990
2241.- 2464.	2352.	0	0.000	104	0.990
2465.- 2688.	2576.	0	0.000	104	0.990
2689.- 2912.	2800.	0	0.000	104	0.990
2913.- 3136.	3024.	0	0.000	104	0.990
3137.- 3360.	3248.	0	0.000	104	0.990
3361.- 3584.	3472.	0	0.000	104	0.990
3585.- 3808.	3696.	0	0.000	104	0.990
3809.- 4032.	3920.	0	0.000	104	0.990
4033.- 4256.	4144.	0	0.000	104	0.990
4257.- 4480.	4368.	0	0.000	104	0.990
4481.- 4704.	4592.	1	0.010	105	1.000
		105	1.000		

MODE = 112.0
MEAN = 132.1
STANDARD DEVIATION = 434.5
COEFFICIENT OF VARIATION = 3.29
NUMBER OF ABNORMAL SAMPLES = 1

ARITHMETIC HISTOGRAM CU



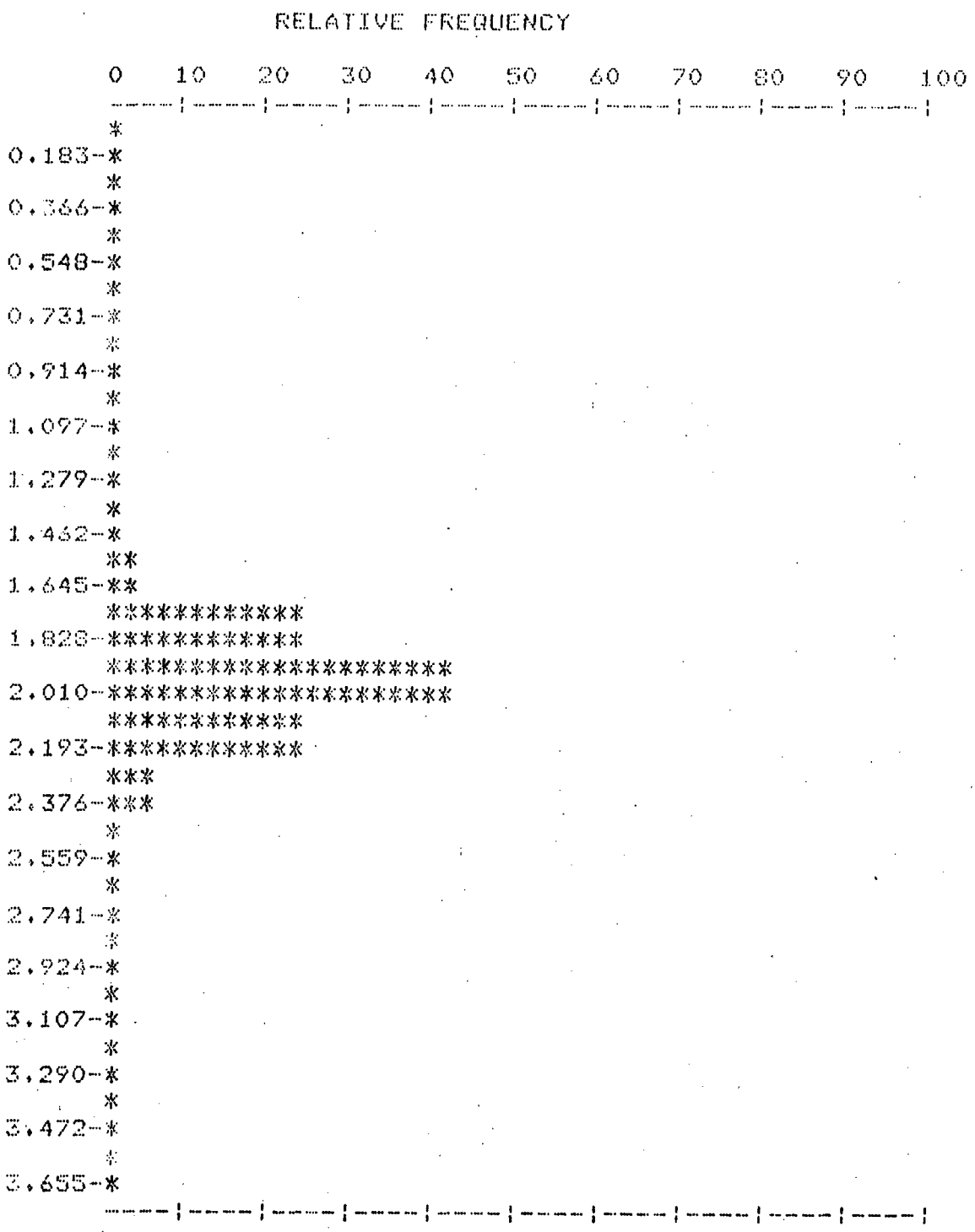
STATISTICAL DATA 9648-1-C2574

LOGARITHMIC DISTRIBUTION OF GROUPED DATA FOR CU

CLASS INTERVAL	INTERVAL MIDPOINT	FREQUENCY	REALTIVE FREQUENCY	CUMULATIVE FREQUENCY	CUMULATIVE FREQUENCY FRACTION
0.000-0.183	0.091	0	0.000	0	0.000
0.184-0.366	0.274	0	0.000	0	0.000
0.367-0.548	0.457	0	0.000	0	0.000
0.549-0.731	0.640	0	0.000	0	0.000
0.732-0.914	0.822	1	0.010	1	0.010
0.915-1.097	1.005	2	0.019	3	0.029
1.098-1.279	1.188	0	0.000	3	0.029
1.280-1.462	1.371	0	0.000	3	0.029
1.463-1.645	1.553	4	0.038	7	0.067
1.646-1.828	1.736	24	0.229	31	0.295
1.829-2.010	1.919	42	0.400	73	0.695
2.011-2.193	2.102	24	0.229	97	0.924
2.194-2.376	2.284	5	0.048	102	0.971
2.377-2.559	2.467	2	0.019	104	0.990
2.560-2.741	2.650	0	0.000	104	0.990
2.742-2.924	2.833	0	0.000	104	0.990
2.925-3.107	3.015	0	0.000	104	0.990
3.108-3.290	3.198	0	0.000	104	0.990
3.291-3.472	3.381	0	0.000	104	0.990
3.473-3.655	3.564	0	0.000	104	0.990
		105	1.000		

GEOMETRIC MEAN = 83.0

LOGARITHMIC HISTOGRAM CU



STATISTICAL DATA 9640-1-C2574

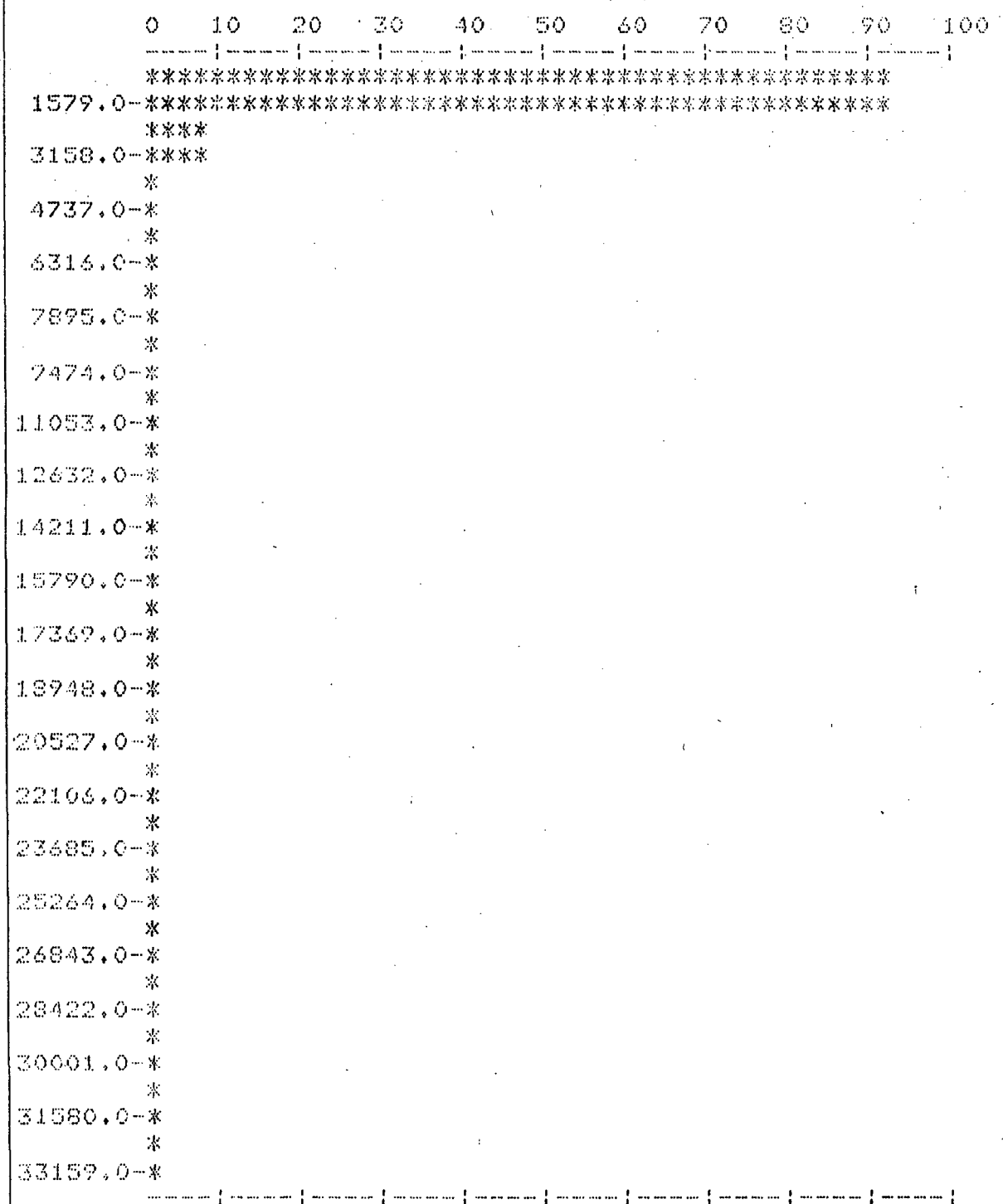
DISTRIBUTION OF GROUPED DATA FOR ZN

CLASS INTERVAL	INTERVAL MIDPOINT	FREQUENCY	REALTIVE FREQUENCY	CUMULATIVE FREQUENCY	CUMULATIVE FREQUENCY FRACTION
0.- 1579.	790.	96	0.914	96	0.91
1580.- 3158.	2369.	7	0.067	103	0.98
3159.- 4737.	3948.	0	0.000	103	0.98
4738.- 6316.	5527.	0	0.000	103	0.98
6317.- 7895.	7106.	0	0.000	103	0.98
7896.- 9474.	8685.	0	0.000	103	0.98
9475.-11053.	*****	0	0.000	103	0.98
11054.-12632.	*****	0	0.000	103	0.98
12633.-14211.	*****	0	0.000	103	0.98
14212.-15790.	*****	0	0.000	103	0.98
15791.-17369.	*****	1	0.010	104	0.99
17370.-18948.	*****	0	0.000	104	0.99
18949.-20527.	*****	0	0.000	104	0.99
20528.-22106.	*****	0	0.000	104	0.99
22107.-23685.	*****	0	0.000	104	0.99
23686.-25264.	*****	0	0.000	104	0.99
25265.-26843.	*****	0	0.000	104	0.99
26844.-28422.	*****	0	0.000	104	0.99
28423.-30001.	*****	0	0.000	104	0.99
30002.-31580.	*****	0	0.000	104	0.99
31581.-33159.	*****	1	0.010	105	1.00
		105	1.000		

MODE = 789.5
MEAN = 874.3
STANDARD DEVIATION = *****
COEFFICIENT OF VARIATION = 3.98
NUMBER OF ABNORMAL SAMPLES = 2

ARITHMETIC HISTOGRAM ZN

RELATIVE FREQUENCY



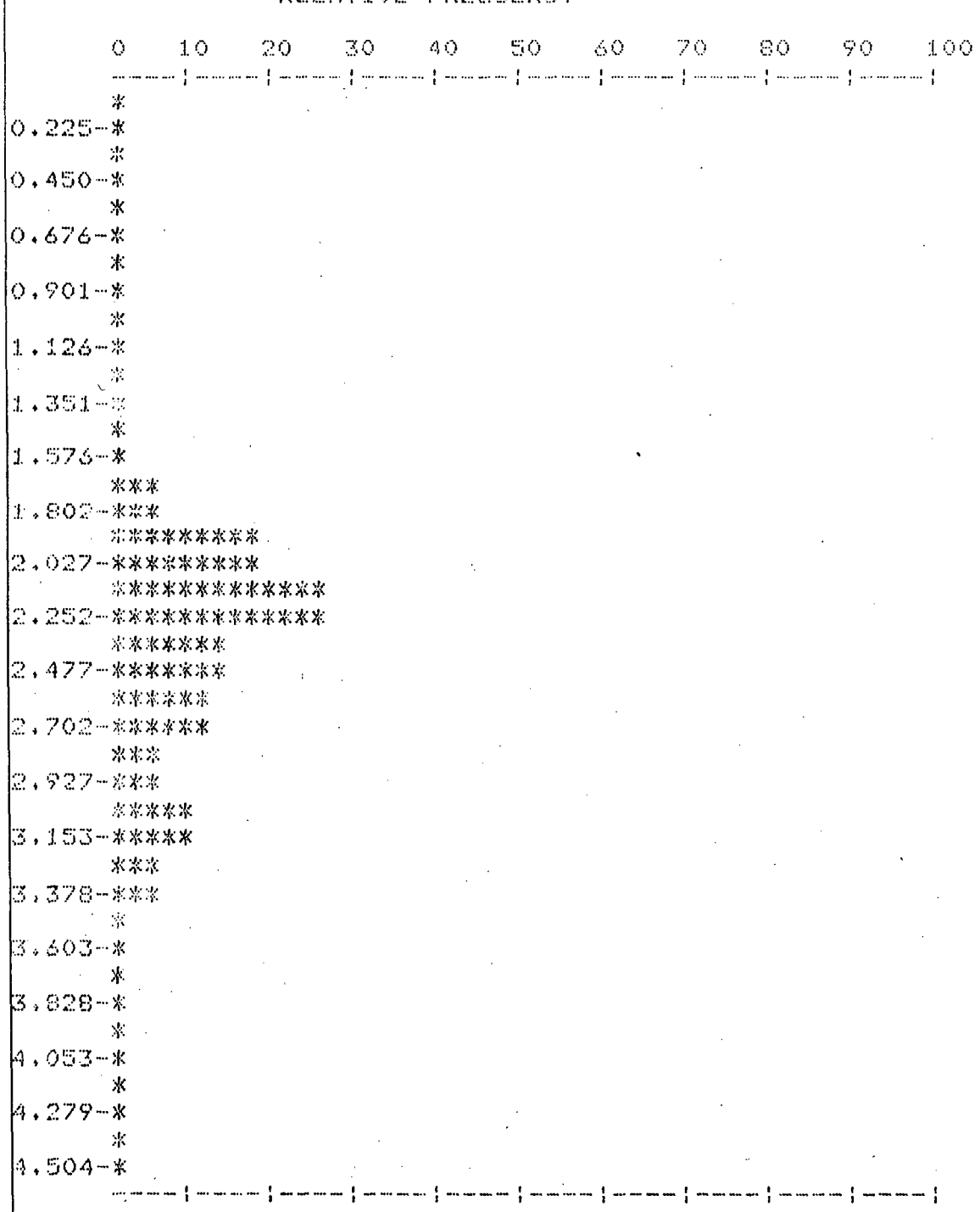
STATISTICAL DATA 9648-1-C2574

LOGARITHMIC DISTRIBUTION OF GROUPED DATA FOR ZN

CLASS INTERVAL	INTERVAL MIDPOINT	FREQUENCY	REALTIVE-FREQUENCY	CUMULATIVE FREQUENCY	CUMULATIVE FREQUENCY FRACTION
0.000-0.225	0.113	0	0.000	0	0.000
0.226-0.450	0.338	0	0.000	0	0.000
0.451-0.676	0.563	0	0.000	0	0.000
0.677-0.901	0.788	0	0.000	0	0.000
0.902-1.126	1.013	0	0.000	0	0.000
1.127-1.351	1.239	1	0.010	1	0.010
1.352-1.576	1.464	2	0.019	3	0.029
1.577-1.802	1.689	6	0.057	9	0.086
1.803-2.027	1.914	17	0.162	26	0.248
2.028-2.252	2.139	27	0.257	53	0.505
2.253-2.477	2.364	14	0.133	67	0.638
2.478-2.702	2.590	12	0.114	79	0.752
2.703-2.927	2.815	6	0.057	85	0.810
2.928-3.153	3.040	10	0.095	95	0.905
3.154-3.378	3.265	6	0.057	101	0.962
3.379-3.603	3.490	2	0.019	103	0.981
3.604-3.828	3.716	0	0.000	103	0.981
3.829-4.053	3.941	0	0.000	103	0.981
4.054-4.279	4.166	1	0.010	104	0.990
4.280-4.504	4.391	0	0.000	104	0.990
		105	1.000		

GEOMETRIC MEAN = 244.1

LOGARITHMIC HISTOGRAM ZN



STATISTICAL DATA 9648-1-C2574

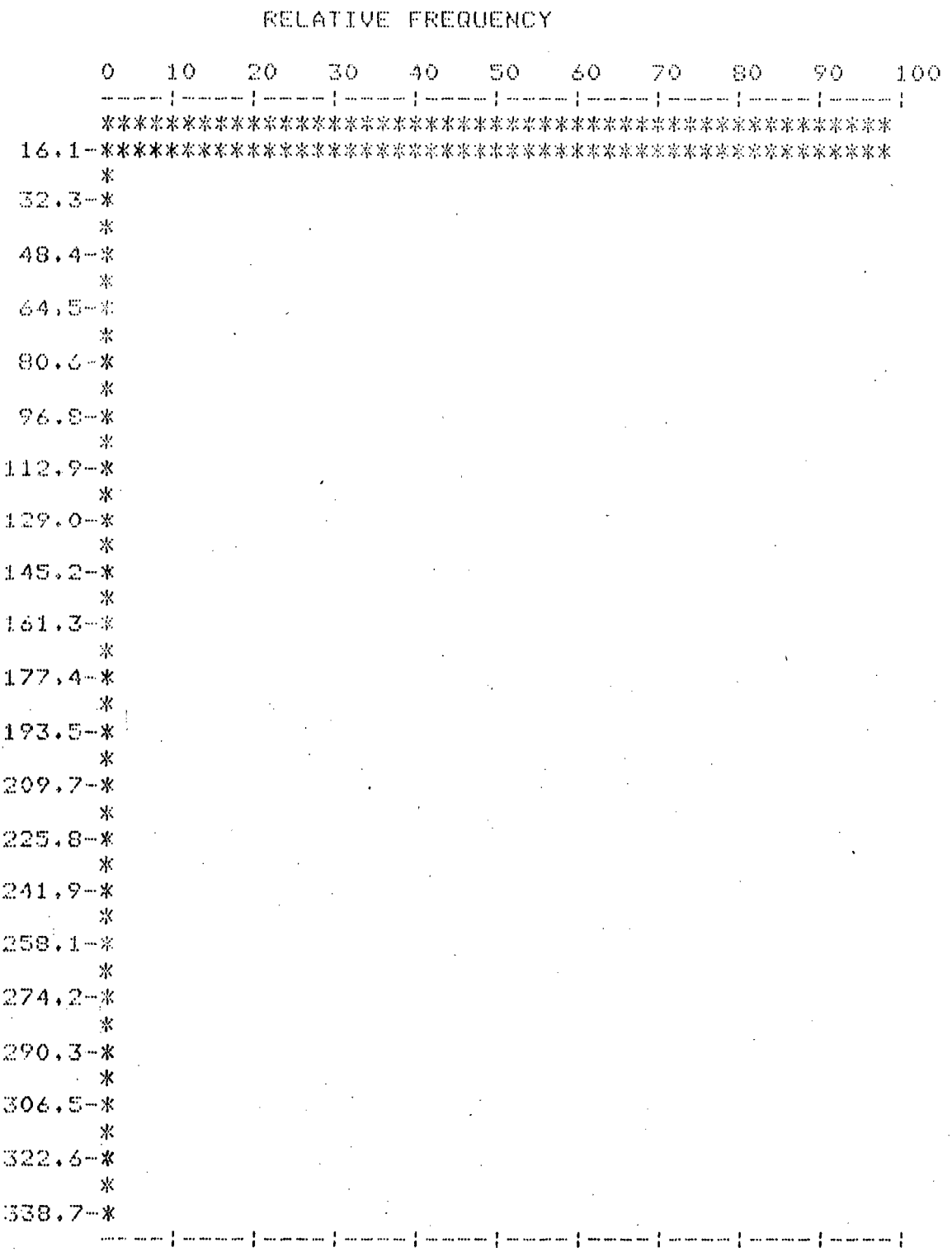
DISTRIBUTION OF GROUPED DATA FOR AG

CLASS INTERVAL	INTERVAL MIDPOINT	FREQUENCY	REALTIVE FREQUENCY	CUMULATIVE FREQUENCY	CUMULATIVE FREQUENCY FRACTION
0.00-16.13	8.06	102	0.971	102	0.971
16.14-32.26	24.19	1	0.010	103	0.981
32.27-48.39	40.32	0	0.000	103	0.981
48.40-64.52	56.45	0	0.000	103	0.981
64.53-80.65	72.58	0	0.000	103	0.981
80.66-96.77	88.71	0	0.000	103	0.981
96.78-*****	*****	0	0.000	103	0.981
*****-*****	*****	0	0.000	103	0.981
*****-*****	*****	0	0.000	103	0.981
*****-*****	*****	0	0.000	103	0.981
*****-*****	*****	1	0.010	104	0.990
*****-*****	*****	0	0.000	104	0.990
*****-*****	*****	0	0.000	104	0.990
*****-*****	*****	0	0.000	104	0.990
*****-*****	*****	0	0.000	104	0.990
*****-*****	*****	0	0.000	104	0.990
*****-*****	*****	0	0.000	104	0.990
*****-*****	*****	0	0.000	104	0.990
*****-*****	*****	0	0.000	104	0.990
*****-*****	*****	1	0.010	105	1.000

105 1.000

MODE = 8.1
MEAN = 6.0
STANDARD DEVIATION = 35.9
COEFFICIENT OF VARIATION = 5.98
NUMBER OF ABNORMAL SAMPLES = 2

ARITHMETIC HISTOGRAM AG



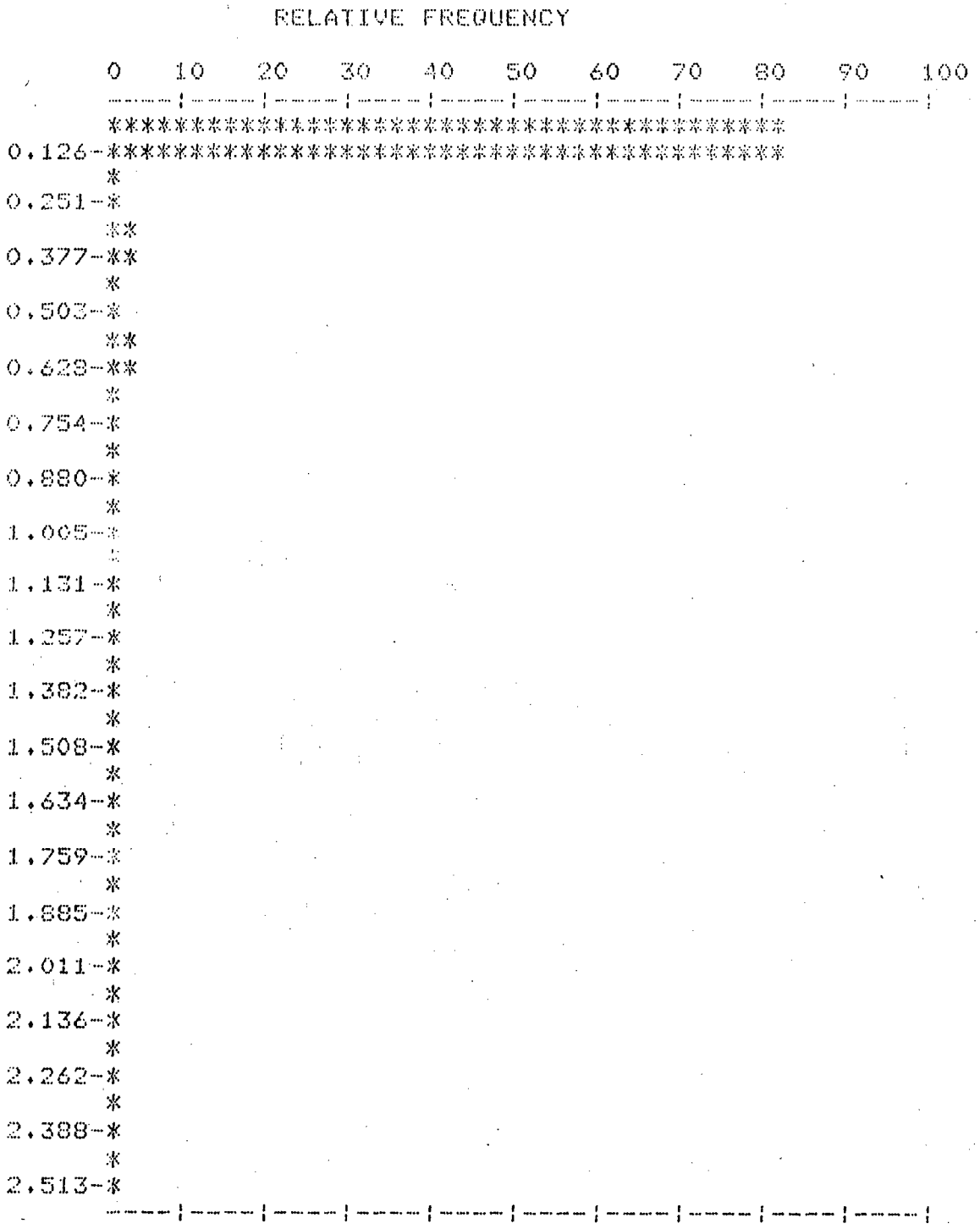
STATISTICAL DATA 9648-1-C2574

LOGARITHMIC DISTRIBUTION OF GROUPED DATA FOR AG

CLASS INTERVAL	INTERVAL MIDPOINT	FREQUENCY	REALTIVE FREQUENCY	CUMULATIVE FREQUENCY	CUMULATIVE FREQUENCY FRACTION
0.000-0.126	0.063	86	0.819	86	0.819
0.127-0.251	0.188	1	0.010	87	0.829
0.252-0.377	0.314	4	0.038	91	0.867
0.378-0.503	0.440	2	0.019	93	0.886
0.504-0.628	0.565	4	0.038	97	0.924
0.629-0.754	0.691	2	0.019	99	0.943
0.755-0.880	0.817	0	0.000	99	0.943
0.881-1.005	0.942	1	0.010	100	0.952
1.006-1.131	1.068	2	0.019	102	0.971
1.132-1.257	1.194	1	0.010	103	0.981
1.258-1.382	1.319	0	0.000	103	0.981
1.383-1.508	1.445	0	0.000	103	0.981
1.509-1.634	1.571	0	0.000	103	0.981
1.635-1.759	1.696	0	0.000	103	0.981
1.760-1.885	1.822	0	0.000	103	0.981
1.886-2.011	1.948	0	0.000	103	0.981
2.012-2.136	2.073	0	0.000	103	0.981
2.137-2.262	2.199	1	0.010	104	0.990
2.263-2.388	2.325	0	0.000	104	0.990
2.389-2.513	2.450	1	0.010	105	1.000
		105	1.000		

GEOMETRIC MEAN = 0.6

LOGARITHMIC HISTOGRAM AG



STATISTICAL DATA 9648-1-C2574

DISTRIBUTION OF GROUPED DATA FOR AU

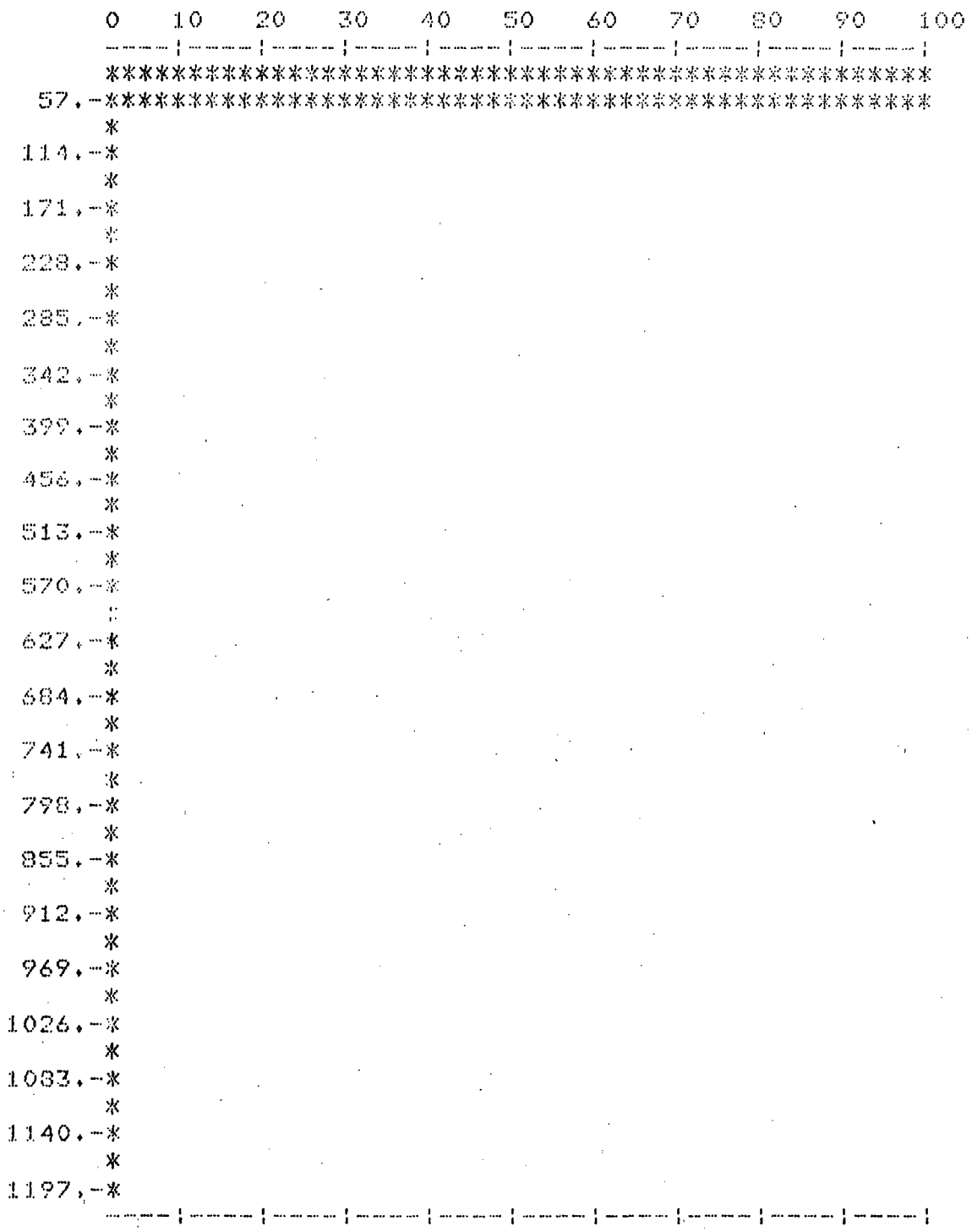
CLASS INTERVAL	INTERVAL MIDPOINT	FREQUENCY	REALTIVE FREQUENCY	CUMULATIVE FREQUENCY	CUMULATIVE FREQUENCY FRACTION
0.- 57.	29.	103	0.981	103	0.981
58.- 114.	86.	0	0.000	103	0.981
115.- 171.	143.	0	0.000	103	0.981
172.- 228.	200.	0	0.000	103	0.981
229.- 285.	257.	0	0.000	103	0.981
286.- 342.	314.	1	0.010	104	0.990
343.- 399.	371.	0	0.000	104	0.990
400.- 456.	428.	0	0.000	104	0.990
457.- 513.	485.	0	0.000	104	0.990
514.- 570.	542.	0	0.000	104	0.990
571.- 627.	599.	0	0.000	104	0.990
628.- 684.	656.	0	0.000	104	0.990
685.- 741.	713.	0	0.000	104	0.990
742.- 798.	770.	0	0.000	104	0.990
799.- 855.	827.	0	0.000	104	0.990
856.- 912.	884.	0	0.000	104	0.990
913.- 969.	941.	0	0.000	104	0.990
970.- 1026.	998.	0	0.000	104	0.990
1027.- 1083.	1055.	0	0.000	104	0.990
1084.- 1140.	1112.	0	0.000	104	0.990
1141.- 1197.	1169.	1	0.010	105	1.000

105 1.000

MODE = 28.5
MEAN = 4.6
STANDARD DEVIATION = 116.9
COEFFICIENT OF VARIATION = 25.57

ARITHMETIC HISTOGRAM AU

RELATIVE FREQUENCY



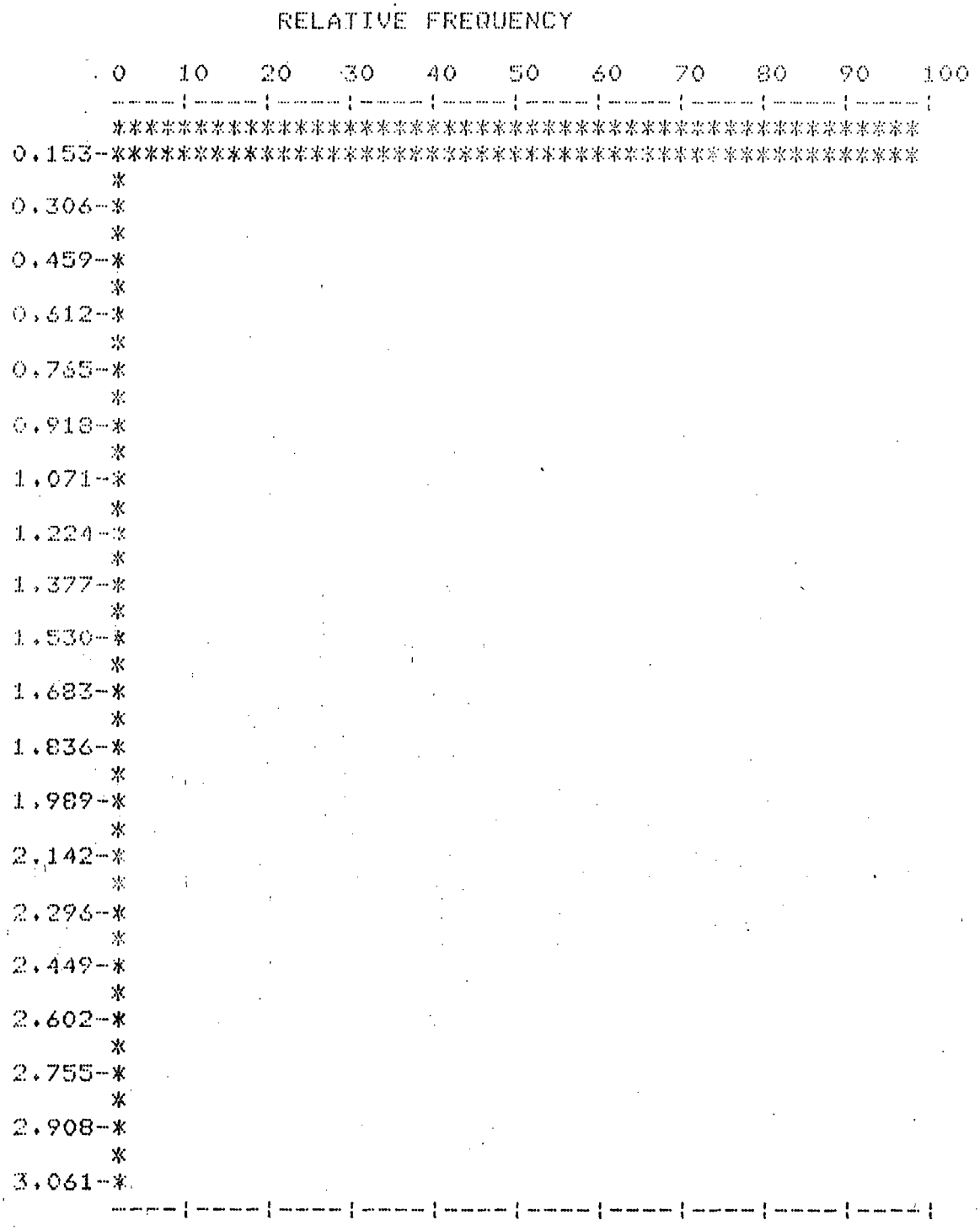
STATISTICAL DATA 9648-1-C2574

LOGARITHMIC DISTRIBUTION OF GROUPED DATA FOR AU

CLASS INTERVAL	INTERVAL MIDPOINT	FREQUENCY	REALTIVE FREQUENCY	CUMULATIVE FREQUENCY	CUMULATIV FREQUENCY FRACTION
0.000-0.153	0.077	101	0.962	101	0.962
0.154-0.306	0.230	0	0.000	101	0.962
0.307-0.459	0.383	0	0.000	101	0.962
0.460-0.612	0.536	0	0.000	101	0.962
0.613-0.765	0.689	0	0.000	101	0.962
0.766-0.918	0.842	0	0.000	101	0.962
0.919-1.071	0.995	1	0.010	102	0.971
1.072-1.224	1.148	0	0.000	102	0.971
1.225-1.377	1.301	0	0.000	102	0.971
1.378-1.530	1.454	1	0.010	103	0.981
1.531-1.683	1.607	0	0.000	103	0.981
1.684-1.836	1.760	0	0.000	103	0.981
1.837-1.989	1.913	0	0.000	103	0.981
1.990-2.142	2.066	0	0.000	103	0.981
2.143-2.296	2.219	0	0.000	103	0.981
2.297-2.449	2.372	0	0.000	103	0.981
2.450-2.602	2.525	1	0.010	104	0.990
2.603-2.755	2.678	0	0.000	104	0.990
2.756-2.908	2.831	0	0.000	104	0.990
2.909-3.061	2.984	1	0.010	105	1.000
		105	1.000		

GEOMETRIC MEAN = 1.2

LOGARITHMIC HISTOGRAM AU



APPENDIX 3 : CORE SAMPLE SHEETS

CHEMEX LABS LTD.

SAMPLE SHIPMENT NOTICE

From :

Date shipped :

Via :

Results to :

Charge :

DDH-K-81-6 cont'd.

Sample No.	Location	Type	Analyze for				
2180 - 34.0 - 35.36 meters.							
2181 - 35.36 - 36.8							
2182 - 36.8 - 38.0							
2183 - 40.9 - 42.0							
2184 - 56.6 - 57.0							
2185 - 65.2 - 66.0							
2186 - 74.37 - 75.0							
2187 - 77.6 - 78.3							
END OF HOLE							
~~4~~							
DDH-K-81-7							
2188 - 4.57 - 4.8							
2189 - 7.9 - 9.4							
2190 - 9.4 - 10.3							
2191 - 12.3 - 12.9							
2192 - 39.6 - 40.23							
2193 - 56.5 - 57.0							
2194 - 68.3 - 68.7							
2195 - 88.09 - 89.31							
2196 - 89.31 - 90.5							
2197 - 90.5 - 91.9							
2198 - 91.9 - 93.6							
2199 - 93.6 - 94.7							
2200 - 94.7 - 95.1							
2? END OF HOLE							
~~4~~							
DDH-K-81-8							

CHEMEX LABS LTD.

SAMPLE SHIPMENT NOTICE

From :

Date shipped : DDH-K-81-1

Via :

Results to :

Charge :

Sample No.	Location	Type	Analyze for				
2001 (K-1) 4.57 - 6.4 m							
2002 (K-2) 6.4 - 7.1							
2003 (K-3) 7.1 - 7.47							
2004 (K-4) 7.47 - 8.50							
2005 (K-5) 8.50 - 8.84							
2006 (K-6) 8.84 - 9.7							
2007 (K-7) 9.7 - 10.67							
2008 (K-8) 10.67 - 11.62							
2009 (K-9) 11.62 - 12.57							
2010 (K-10) 12.57 - 13.72							
2011 (K-11) 13.72 - 14.02							
2012 (K-12) 14.02 - 15.37							
2013 (K-13) 15.37 - 16.12							
2014 (K-14) 16.12 - 16.65							
2015 (K-15) 16.65 - 17.41							
2016 - 17.41 - 18.7							
2017 - 18.7 - 19.31							
2018 - 19.31 - 21.0							
2019 - 21.0 - 22.96							
2020 - 22.96 - 24.10							
2021 - 24.1 - 25.91							
2022 - 25.91 - 27.4							
2023 - 27.4 - 28.96							
2024 - 28.96 - 30.26							
2025 - 30.26 - 31.76							
2026 - 31.76 - 33.10							
2027 - 33.1 - 34.5							
2028 - 34.5 - 35.8							

CHEMEX LABS LTD.

SAMPLE SHIPMENT NOTICE

From :

Date shipped : DDH-K-81-1 cont'd.

Via :

Results to :

Charge :

Sample No.	Location	Type	Analyze for				
2029 - 35.8 - 37.3 m.							
2030 - 37.3 - 38.5							
2031 - 38.5 - 39.9							
2032 - 39.9 - 41.2							
2033 - 41.2 - 42.8							
2034 - 42.8 - 44.1							
2035 - 44.1 - 45.5							
2036 - 45.5 - 47.1							
2037 - 47.1 - 48.24							
2038 - 48.24 - 49.7							
2039 - 49.7 - 51.0							
2040 - 51.0 - 52.1							
2041 - 52.1 - 53.5							
2042 - 53.5 - 55.0							
2043 - 55.0 - 56.3							
2044 - 56.3 - 57.7							
2045 - 57.7 - 58.8							
2046 - 58.8 - 61.0							
2047 - 61.0 - 62.48							
2048 - 62.48 - 64.01							
2049 - 64.01 - 65.0							
2050 - 65.0 - 65.53							
2051 - 65.53 - 66.45							
2052 - 66.45 - 67.9							
2053 - 67.9 - 69.0							
2054 - 69.0 - 70.5							
2055 - 70.5 - 72.0							
2056 - 72.0 - 73.4							

CHEMEX LABS LTD.

SAMPLE SHIPMENT NOTICE

From :

Date shipped :

Via :

Results to :

Charge :

Sample No.	Location	Type	Analyze for				
2057 - 73.4 - 74.7							
2058 - 74.7 - 76.2							
END OF HOLE							
~~H~~							
↓ DDH-K-81-2 ↓							
2059 - ~~13.2~~ - ~~13.72~~							
2060 - ~~20.1~~ - 21.0							
2061 - 21.0 - 22.0							
2062 - 22.25 - 23.3							
2063 - 23.3 - 24.7							
2064 - 24.7 - 26.0							
2065 - 26.0 - 27.5							
2066 - 27.5 - 28.8							
2067 - 28.8 - 30.2							
2068 - 30.2 - 31.6							
2069 - 31.6 - 33.1							
2070 - 33.1 - 34.4							
2071 - 34.4 - 34.95							
2072 - 36.2 - 36.4							
2073 - 37.8 - 39.1							
2074 - 39.1 - 40.6							
2075 - 40.6 41.2							
2076 - 41.2 - 42.3							
2077 - 42.3 - 42.98							
2078 - 42.98 - 44.2							
2079 - 55.0 - 56.1							
2080 - 60.1 - 60.4							
2081 - 63.9 - 64.3							

CHEMEX LABS LTD.

SAMPLE SHIPMENT NOTICE

From :

Date shipped :

Via :

Results to :

Charge : DDH-K-81-2 cont'd.

Sample No.	Location	Type	Analyze for				
2082 - 66.8 - 67.1 M							
2083 - 68.3 - 68.58							
2084 - 69.0 - 69.2							
END OF HOLE							
~~4~~							
DDH-K-81-3 ↓							
2085 - 11.3 - 11.9							
2086 - 15.4 - 16.8							
2087 - 16.8 - 19.2							
2088 - 21.1 - 21.6							
2089 - 29.7 - 30.0							
2090 - 32.5 - 33.0							
2091 - 35.25 - 37.03	~50% recovery						
2092 - 37.4 - 38.71							
2093 - 38.71 - 39.9							
2094 - 41.4 - 41.7							
2095 - 44.8 - 45.5							
2096 - 47.5 - 47.8							
2097 - 47.8 - 49.38							
2098 - 50.0 - 51.6							
2099 - 54.7 - 54.9							
2100 - 55.9 - 56.5							
2101 - 58.7 - 59.6							
2102 - 59.6 - 61.27							
2103 - 61.27 - 62.4							
2104 - 64.31 - 64.6							
2105 - 65.4 - 66.4							
2106 - 66.4 - 67.9							

CHEMEX LABS LTD.

SAMPLE SHIPMENT NOTICE

From :

Date shipped :

Via :

Results to :

Charge :

DDH - K.E. Scott

Sample No.	Location	Type	Analyze for				
2107 - 63.58 - 69.5 m							
2108 - 72.4 - 73.75							
2109 - 76.2 - 77.1							
2110 - 89.92 - 90.92							
2111 - 90.92 - 91.7							
2112 - 96.0 - 96.2							
2113 - 96.5 - 97.3							
2114 - 119.4 - 120.0							
2115 - 120.0 - 121.0							
2116 - 121.0 - 122.5							
2117 - 122.5 - 123.6							
2118 - 123.6 - 125.0							
2119 - 125.0 - 126.3							
2120 - 126.3 - 127.6							
2121 - 127.6 - 128.8							
2122 - 128.8 - 130.2							
2123 - 130.2 - 131.6							
2124 - 131.6 - 132.59							
2125 - 132.59 - 133.4							
2126 - 133.4 - 134.3							
2127 - 134.3 - 135.7							
2128 - 135.7 - 137.1							
2129 - 140.6 - 141.1							
END OF HOLE							
4							

CHEMEX LABS LTD.

SAMPLE SHIPMENT NOTICE

From :

Date shipped :

Via :

Results to :

Charge : DDH-K-81-4

Sample No.	Location	Type	Analyze for				
2130 - 10.82 - 11.3							
2131 - 14.7 - 15.2							
2132 - 15.39 - 16.0							
2133 - 21.6 - 22.0							
2134 - 23.17 - 23.4							
2135 - 32.8 - 33.2							
2136 - 41.5 - 41.9							
2137 - 46.9 - 47.1							
2138 - 49.7 - 50.6							
2139 - 53.65 - 55.1							
2140 - 55.1 - 55.6							
2141 - 62.31 - 63.0							
2142 - 63.0 - 64.92							
2143 - 64.92 - 65.84							
2144 - 65.84 - 67.0							
2145 - 67.0 - 67.5							
2146 - 67.5 - 68.58							
2147 - 68.58 - 69.5							
2148 - 69.5 - 70.3							
END OF HOLE							
~~DDH-K-81-5~~ ↓							
2149 - 8.2 - 9.1 m							
2150 - 12.6 - 13.11							
2151 - 20.8 - 21.2							
2152 - 22.4 - 23.0							
2153 - 25.3 - 25.7							
2154 - 38.3 - 38.8							

CHEMEX LABS LTD.

SAMPLE SHIPMENT NOTICE

From :

Date shipped :

Via :

Results to :

Charge :

DDH-K-81-5 cont'd.

Sample No.	Location	Type	Analyze for				
2155 - 42.3 - 43.3							
2156 - 43.3 - 44.9							
2157 - 44.9 - 45.8							
2158 - 46.9 - 48.0							
2159 - 48.0 - 49.5							
2160 - 49.5 - 50.7							
2161 - 50.7 - 52.0							
2162 - 78.6 - 79.4							
2163 - 79.4 - 80.7							
2164 - 80.7 - 82.0							
2165 - 82.0 - 83.5							
2166 - 83.5 - 84.9							
2167 - 84.9 - 86.4							
2168 - 86.4 - 87.2							
2169 - 93.1 - 93.4							
2170 - 96.9 - 97.3							
2171 - 97.3 - 98.91							
2172 - 98.91 - 100.3							
2173 - 103.0 - 104.5							
2174 - 105.9 - 102.4							
2175 - 126.6 - 127.5							
END OF HOLE							
DDH-K-81-6							
2176 - 15.85 - 16.1							
2177 - 30.1 - 31.7							
2178 - 31.7 - 33.07							
2179 - 33.07 - 34.0							

CARMI 5 | CARMI 6

CARMI 2 | CARMI 3

LEGAL CORNER POST

ABANDONED RAILWAY BED

HIGHWAY 33

TO BEAVERDELL

BUTCHER BOY SHAFT

CARMI SHAFT

RIVER ADIT

K-81-1

K-81-5

K-81-4

K-81-2

K-81-6

K-81-8

K-81-7

K-81-3

BASE LINE

WEST KETTLE RIVER

ABANDONED RAILWAY BED

1+50 W | 0+25 W | 0+00 | 0+25 E | 1+50 E | 2+25 E | 3+00 E | 3+75 E | 4+50 E | 5+25 E | 6+00 E | 6+75 E | 7+50 E | 8+25 E | 9+00 E | 9+75 E | 10+50 E | 11+25 E | 12+00 E

CARMI PROSPECT - DRILL HOLE LOCATIONS

- Road, highway
- River, creek
- Grid line - station
- Drill hole location
- Proposed drill hole location
- Adit
- Claim boundary
- Approximate trace of geophysical anomaly.

0 50 100 METERS

SCALE: 1:2,000

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
[redacted]

N.T.S. - 82E/6.11

GREENWOOD M.D.

G.L. GARRATT

MARCH, 1981.