

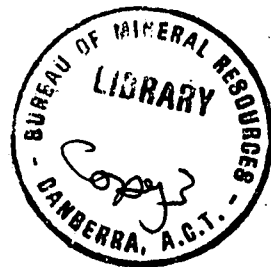
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THE WOODCUTTERS L5 PROSPECT, RUM JUNGLE AREA,
NORTHERN TERRITORY

by

P.W. Crohn, W.J. Langron, C.E. Prichard

Part I - Text

The information contained in this report has been obtained by the Department of National Development as part of the policy of the Commonwealth Government to assist in the exploration and development of mineral resources. It may not be published in any form or used in a company prospectus or statement without the permission in writing of the Director, Bureau of Mineral Resources, Geology and Geophysics.

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CONTENTS

	Page
SUMMARY	
INTRODUCTION	1
DEFINITION OF AREA	1
GENERAL GEOLOGY	1
HISTORY OF EXPLORATION	2
GEOLOGY OF THE L 5 AREA	2
GEOCHEMICAL SURVEYS	3
GEOBOTANICAL SURVEY	4
GEOPHYSICAL SURVEYS	4
DIAMOND DRILLING RESULTS	7
LODE STRUCTURE	7
LITHOLOGY	7
ASSAY PROCEDURES	8
LODE MINERALOGY	8
EXTENT OF PROVEN MINERALISATION AND METAL RATIOS	8
TARGETS REMAINING TO BE TESTED	9
PREVIOUS REPORTS	9
REFERENCES	10

TABLE 1 SUMMARY OF DIAMOND DRILLING RESULTS

- APPENDIX 1 GEOCHEMICAL RESULTS
- 2 LITHOLOGICAL LOGS AT DIAMOND DRILL HOLES
- 3 ASSAY AND ANALYTICAL RESULTS AT DIAMOND DRILL HOLES

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ILLUSTRATIONS

Text Figures: Sections on 192S, 200S, 204S, 208S, 212S, 216S, 220S,
and 224S.

Plates:

1. Geological map, Rum Jungle Area, scale 1 mile : 1 inch.
2. Geochemical anomalies, Woodcutters Area,
scale 600 feet : 1 inch.
3. Surface projection, L5 Lode, scale 100 feet : 1 inch.
4. Longitudinal projection, L5 Lode, scale 100 feet : 1 inch.
5. Sampling of gossan L5 prospect, scale 50 feet : 1 inch.
6. Slingram Real- and Imaginary Component Profiles.
7. Radiometric Results.
8. Slingram Real - Component Contours.
9. Slingram Imaginary - Component Contours.
10. Turam and Slingram Profiles.
11. Turam Profiles and Drilling Results.
12. Resistance and Radiometric Logs of DDH 66-3.
13. Traverses 204S, 208S, 220S - Comparison of Geophysical
and Drilling Results.
14. Self-Potential Contours.
15. Comparison of S.P. Logs and Drilling Results,
DDH 66-2, DDH 66-3.
16. Gravity Profiles.
17. Gravity Contours.

SUMMARY

This report provides a summary of the geological, geochemical, geophysical and diamond drilling information, available on the Woodcutters L5 Area at November 1967.

This area, of about 360 acres, contains the Woodcutters L5 Prospect, - a complex lead-zinc sulphide lode, with locally high silver and cadmium values - and is situated a few hundred yards west of the Stuart Highway, about 50 miles south of Darwin.

In 1964, reconnaissance surveys, by the Bureau of Mineral Resources located a zone of geochemical, geophysical and radiometric anomalies in this area, and a more detailed survey in 1965 resulted in the delineation of a geochemical anomaly with a peak value of more than 7,000 ppm. lead.

Eleven diamond drill holes, totalling 7,395 feet, have since been put down at this prospect, of which seven have intersected significant mineralisation, and one hole is in progress.

The lode occurs in carbonaceous calcareous and pyritic slates of the Lower Proterozoic Golden Dyke Formation, and in its northern part appears to occupy a steeply dipping shear zone in the axial portion of a relatively open, north-pitching anticline. However, the structural relations in its southern part are complicated by probable faulting or drag-folding.

On present indications, the lode has an average width of about twenty feet and a strike length of about 1,600 feet, and extends vertically from about 300 feet to at least 600 feet below surface.

The best results were obtained in DDH 66-3, in the southern part of the area, which intersected 79 feet of lode material, averaging 9.1% Pb, 19.4% Zn, and 7.8 oz. Ag per ton, but there is a considerable variation in the metal ratios in other drill hole intersections.

THE WOODCUTTERS L 5 PROSPECT, RUM JUNGLE AREA, N.T.

INTRODUCTION

The Woodcutters L 5 Prospect is a complex lead-zinc sulphide lode, with locally high silver and cadmium values, situated a few hundred yards west of the Stuart Highway, about 50 miles south of Darwin. The Prospect is about eight miles east of the Rum Jungle treatment plant, and about ten miles from the Batchelor Siding on the North Australian Railway.

DEFINITION OF AREA

The outline of the area immediately surrounding the L 5 Prospect, which is referred to as the L 5 Area in the remainder of this report, and which is the subject of the proposed negotiations between the Commonwealth Government and interested mining companies, is shown on Plates 1 and 2. It consists of about 360 acres, and, pending further surveys, it is defined in terms of a local grid, known as the Rum Jungle East grid, which consists of east - west lines, 400 feet apart, pegged at 100-foot intervals. The L 5 Area extends between co-ordinates 180 S and 240 S on this grid, and between 24 E and the Stuart Highway.

GENERAL GEOLOGY

The prospect lies within the Pine Creek Geosyncline of Lower Proterozoic rocks, which in the Rum Jungle area consists of the Batchelor and Goodparla Groups, comprising in order of increasing age:

- | | |
|------------------------|--|
| Golden Dyke Formation: | black shales and slates, sericitic and chloritic schists, minor intercalated limestones, dolomites, cherts and pyritic quartzites. |
| Coomalie Dolomite: | dolomite and calcilutite, commonly silicified at surface. |
| Crater Formation: | dominantly greywacke and pebble conglomerate. |
| Celia Dolomite: | dolomite and algal dolomite, commonly silicified at surface. |
| Beestons Formation: | arkose, greywacke, quartz sandstone and conglomerate. |

Pyritic quartzites and siltstones of the Acacia Gap Tongue, which is a member of the Masson Formation, interdigitate extensively with rocks of the Golden Dyke Formation.

The whole sequence forms two pronounced domal structures, the cores of which are occupied by the Rum Jungle and Waterhouse Granite Complexes. These granites were originally thought to have intruded the sedimentary rocks, e.g. Malone (1962), but Rhodes (1965) has shown that at least part of the Rum Jungle Complex is of Archaean age and is unconformably overlain by the basal beds of the Batchelor Group to the north-west of Batchelor township.

Other rock types known from the Rum Jungle area comprise ? late Lower Proterozoic dolerite intrusives, the Depot Creek Sandstone of Adelaidean (Upper Proterozoic) age, the Lower Cretaceous Mullaman Beds, and various Cainozoic to Quaternary gravels, lateritic and alluvial deposits and residual soils.

HISTORY OF EXPLORATION

A number of radiometric anomalies were detected in the Woodcutters area by air-borne surveys undertaken by the Bureau of Mineral Resources in 1957. The nearest of these was an anomaly referred to as Woodcutters South, about half a mile north-north-west of the L 5 Prospect. However, costeaning of several of these anomalies showed a rapid decrease of intensity with depth, and no further work was done in the area for several years.

In 1964, reconnaissance geological, geophysical and geochemical surveys were carried out in the Rum Jungle East area by R.G. Dodson, D.O. Shatwell and K. Duckworth of the Bureau of Mineral Resources. These surveys extended from the Giant's Reef Fault to south of the Batchelor Road, and were undertaken along east - west lines spaced 2400 feet apart. As a result, an elongated meridional zone of geochemical, geophysical and radiometric anomalies was delineated in what is now broadly called the Woodcutters area.

In 1965, this was followed by a more detailed survey by D.O. Shatwell, involving auger drilling, geochemical sampling and radiometric probing at 200-foot intervals on lines spaced 400 feet apart; this resulted in the delineation of six well-defined lead anomalies, numbered L 1 to L 6, with peak values of several thousand parts per million, and a number of low-order irregularly distributed copper and radiometric anomalies. A more detailed geophysical survey by K. Duckworth also led to the closer delineation of a number of geophysical anomalies.

In February 1966, diamond drilling commenced at the L 5 Prospect and resulted in an intersection of 21 feet of lode material, averaging 6.3% Zn in the first hole (DDH 66-1), followed by intersections of 22 feet averaging 1.9% Pb and 0.7% Zn in DDH 66-2, and 79 feet averaging 9.1% Pb, 19.4% Zn and 7.8 oz Ag per ton in DDH 66-3.

Since then, another eight holes have been completed at this prospect, three of which (DDHs 66-6, 66-12 and 67-8) have encountered significant mineralisation within the main lode, and one (DDH 67-3) has encountered a separate zone of mineralisation about 150 feet west of the main lode. One hole is in progress at the time of writing (DDH 67-10).

Total footage of the eleven holes completed to November 1, 1967, amounts to 7,395 feet.

Supervision of this drilling programme and logging of cores has been undertaken mainly by D.O. Shatwell and J. Willis of the Bureau of Mineral Resources.

Concurrently with this diamond drilling programme, further geochemical and geophysical surveys were undertaken in the L 5 Area and adjoining areas by D.G. Semple, W. Wirakusumah, J.E. Gardener and W.W. Farrow of the Bureau of Mineral Resources, and a geobotanical survey of part of the L 5 Area has been undertaken by Dr. W.F. Ridley of the Geological Survey of Queensland.

GEOLOGY OF THE L 5 AREA

The topography in the immediate vicinity of the Woodcutters L 5 Prospect is almost flat, and the only outcrops consist of a north-south trending zone of brecciated iron-impregnated sediments, locally referred to as a gossan, which marks the northern portion of the lode outcrop and passes into a massive quartz reef to the north.

However, from the regional geology it is clear that the prospect occurs in rocks of the Golden Dyke Formation, probably within a few hundred

feet stratigraphically of the Golden Dyke - Coomalie Dolomite boundary. From the examination of auger cuttings, the Golden Dyke rocks of the L 5 Area were originally described as siltstones and black shales (Plate 2), but examination of diamond drill cores has shown that, below the zone of weathering, the rocks are predominantly carbonaceous slates, in part calcareous and/or pyritic, and with occasional minor intercalations of dolomite and calcilutite. The Coomalie Dolomite has not been recognised in the immediate vicinity of the prospect, either at the surface or in any of the existing drill holes, but geophysical results suggest that it may underlie parts of the L 5 Area at moderate depth (Plate 8). A band of amphibolite (? meta-dolerite), about 400 feet wide, occurs just west of the western boundary of the L 5 Area.

The only known post-Lower Proterozoic formations in the immediate vicinity of the L 5 Prospect are residual soils and minor lateritic and alluvial deposits. In general, auger drilling to an average depth of 15 feet was sufficient to bring up fragments of bed-rock in this area, although these were commonly strongly weathered.

Structurally, the prospect is situated within the axial portion of a relatively open, north-pitching anticline. There is evidence for the persistence of this anticline to at least the L 1 locality, and probably to the vicinity of the Giant's Reef Fault, four miles north of L 5, but there is a pitch reversal between L 5 and L 1, so that the pitch in the northern portion of the structure is to the south.

In the vicinity of the L 1 and L 3 localities, to the north of L 5, there is some evidence of faulting along north-east trending zones, sub-parallel to the Giant's Reef Fault, and there is a possibility that a fault of similar trend may have influenced the attitude of the lode in the southern portion of the L 5 Prospect.

In the immediate vicinity of the L 5 Prospect, evidence for the position of the anticline is provided by structural data from bull-dozed exposures and shallow costeans, and from drill cores. Assuming that cleavage generally strikes northerly and dips more steeply than bedding, moderate westerly dips predominate in all holes except 66-1 and 67-10, which were collared to the east of the main anticlinal axis. Very low westerly dips are characteristic of parts of 66-12 and 67-4, and some minor dip reversals (? drag folds) have been interpreted in 66-7.

GEOCHEMICAL SURVEYS

The main geochemical anomalies of the Woodcutters area, as delineated by the 1964 and 1965 surveys, are shown in Plate 2, and the analytical results of individual samples are given in Appendix 1. Samples were taken from the bottom of each hole, at an average depth of about 15 feet; samples obtained in 1964 were analysed for Cu, Pb, Co, Zn, Ni and Mo by optical emission spectrograph, and those obtained in 1965 were analysed for Cu and Pb by atomic absorption spectrophotometer. Peak values for the 1965 survey were in excess of 7000 ppm Pb and 300 ppm Cu, compared to background values of 40 to 50 ppm Pb and 30 to 40 ppm Cu for the survey area as a whole.

The results of a more detailed chip-sampling programme of the gossan at the L 5 Prospect, undertaken by W. Wirakusumah in 1967, are shown on Plate 5. Peak values for this survey are in excess of 40,000 ppm (4%) Pb, and 4,000 ppm (0.4%) Cu.

GEOBOTANICAL SURVEY

A geobotanical survey of part of the Woodcutters L 5 Area was undertaken in 1967 by Dr. W.F. Ridley of the Geological Survey of Queensland. This consisted of the sampling of bark, twigs and leaves of trees growing on part of the mineralised zone, in order to determine their trace element contents relative to that of comparable material from a near-by unmineralised area. However, the results of this survey are not yet available.

GEOPHYSICAL SURVEYS

The results of reconnaissance geophysical surveys undertaken in 1964 using Slingram and radiometric methods along traverses 2400 feet apart are shown on Plates 6 and 7. This work revealed nothing of interest in the L 5 area.

This work was followed in 1965 to 1967 by detailed surveys using Electromagnetic (Slingram and Turam), radiometric, induced polarization (I.P.), self potential (S.P.), gravity and magnetic methods. In addition, radiometric and electric logging of drill holes was carried out.

The Slingram real- and imaginary component contours are shown on Plates 8 and 9. Slingram profiles are included on Plate 10. A feature of these is the presence of undisturbed zones which possibly indicate that the Coomalie Dolomite approaches the surface at these zones, although it does not actually crop out. Conductors are shown by troughs on the real component contour map. Auger hole results show that these conductors generally occur in black slates. The high conductivity of these slates may be due to a high sulphide or graphite content. Comparison with model experiments shows that the generally high real component values over most of the area would be caused by a horizontal conductor at a depth of about 150 feet.

The radiometric results show no very pronounced anomalies. Two zones which reach twice background are shown on Plate 7.

Eight traverses (200S to 228S) were surveyed using the Turam method with a straight grounded cable laid along 30E as the source of the primary field. Readings were taken using frequencies of 220 and 660 c/s, and the profiles at 220 c/s are shown in Plate 10. The results suggest an extensive horizontal conductor with variations in composition which cause minor anomalies. A very low resistivity for the conductor is indicated by the low values for the phase differences.

A further Turam survey was made from 192S to 228S using a primary field produced by a loop east of the area surveyed. Coil spacing was 50 feet, stations were 50 feet apart, and frequencies used were 220 c/s and 660 c/s. Results using 220 c/s, together with diamond drill hole sulphide intersections are shown on Plate 11. There is no direct correlation between the Turam results and the known mineralisation in this area.

The conductor indicated by the electromagnetic results is presumed to be the top of the unweathered slate. Geophysical logging of diamond drill holes in the Woodcutters area has shown that the slate is highly conducting, and also that the difference in conductivity between the slate and the high-grade mineralisation is very small. The logs of DDH66/3 (collar 33E 220S; dep. 60°E) reproduced in Plate 12 clearly demonstrate this. Electromagnetic methods generally would therefore be influenced by the slate alone, and it is considered that these methods are of no use in defining mineralisation in this environment.

(IP. readings were taken on traverses 204S, 208S and 220S, where diamond drilling had been completed at the time of the survey. A comparison of IP and drilling results is shown in Plate 13.

The apparent resistivity profiles indicate a marked decrease in resistivity with increasing depth. Values higher than 250 ohm-metres occur near the surface, but decrease to less than 10 ohm-metres at larger dipole separations. There is also a tendency for the lower resistivities to appear closer to the surface at the western ends of the profiles, which is attributed to a decrease in the depth of weathering.

The frequency effect profiles show a generally high frequency effect background with localised regions of higher values. The anomalous regions do not correlate well with the known mineralisation and it is probable that the small effects which the mineralisation would produce are masked by the strong effects produced by amphibolites and pyritic graphitic shales.

SP work revealed anomalies over the length of the area surveyed (Plate 14). Between 200S and 208S the positions of the negative centres coincide with the geochemical lead anomaly, but are slightly east of the known mineralisation. South of 212S the negative centres are west of both the geochemical anomaly and the mineralisation, but coincide with them again on 228S. About 232S the geochemical and SP anomalies follow a more westerly trend.

On traverse 208S the SP anomaly increases very sharply close to an outcrop of gossan and a near surface source is suspected which is associated with the gossan, but deeper sources are indicated on other traverses. However a visual inspection of the sections and profiles on Plates 13 and 15 suggests that the sulphide intersections are not the direct origin of the S.P. anomalies. Calculations assuming thin plates in the positions indicated by diamond drilling produce anomalies closer to the intersections than found in the field; similarly with ellipsoids in place of the thin plates. The negative centres found in the field are in fact located over zones of highest resistivity.

Nevertheless the presence of the S.P. anomalies consistently close to the sulphide intersections at the LS geochemical anomaly is too much of a coincidence not to be significant. Further work is required to establish the true nature of the anomaly sources.

To test if the high grade sulphide zone could be detected directly using magnetic methods a short magnetic traverse was read over DDH 66/3 (traverse 220S), using an Askania vertical field torsion magnetometer. The profile (Plate 13) shows that the only magnetic anomalies detected were caused by near surface sources and were not associated with the sulphide zone. The drill core from DDH 66/3 over the mineralised section was later placed, foot by foot, directly under the magnetometer, but was found to be non-magnetic. Six aeromagnetic traverses were flown across the area but these also showed no response over the mineralisation.

The gravity results are shown as profiles in Plate 16 and as contours in Plate 17, where the main anomalies are denoted by A, B, and D. The results have not been corrected for terrain effect, which is generally negligible.

Sample densities were determined of sections of core from drill holes in the L 5 area by a water displacement method. Densities for porous, weathered rocks are difficult to assess because of the indeterminate amount of water they contain in situ. The laboratory measurements show that, in general, the mineralised sections have a density of about 4.0 g/cm^3 and the country rock has a mean density of about 3.0 g/cm^3 .

The field results show a strong northerly trend in the gravity anomaly pattern which agrees with the known geological strike and the trend of the known mineralisation. It is possible that faulting separates the sources of anomalies A and D which might otherwise be one continuous feature.

Anomaly A has a magnitude of about 0.4 mgl and a maximum half-width of about 400 feet located on traverse 216S. An anomaly with these dimensions is consistent with that caused by a near vertical tabular body with a density contrast of 1.0 g/cm^3 which is 50 to 100 feet wide and which does not approach closer than 200 feet to the surface. Weathering is found by drilling to occur to a depth of more than 200 feet in this area, limiting primary sulphides to below that depth.

Anomaly A corresponds well with the position of the geochemical lead anomaly. High density lead and zinc mineralisation was intersected by a diamond drill hole on line 220S over a length of 79 feet at a vertical depth of 500 feet below 36E. Further north on traverses 204S and 208S, where the geochemical anomaly is most pronounced, the gravity anomaly is much smaller, but coincides with a large SP anomaly. Drilling on these traverses revealed pyrite mineralisation (with some lead and zinc) weathered to a depth of 300 feet. Weathering would presumably reduce the density of the lode material and could account for the gravity results. On traverse 208S a gossan crops out which has a higher density than the normal weathered country rock and probably contributes to the steep-sided anomaly located on that traverse.

Anomaly D does not correspond to any significant geochemical anomaly, but is associated with a large SP anomaly which covers approximately the same area and has a similar shape. DDH 66/5 (location 37E 192S Depression 60°E) was drilled south of this gravity anomaly, but within the SP anomaly, and intersected 21 feet of pyrite mineralisation at a depth of about 400 feet.

Anomaly B corresponds to neither a geochemical lead anomaly nor an SP anomaly, although an SP anomaly occurs between it and anomaly A.

It is possible that anomaly A is caused by the high density sulphide body and a similar cause may be inferred for the other gravity anomalies. However, anomalies of such small magnitude can be caused simply by changes in depth to unweathered rock, and preferential weathering caused by lithological variations. There are, for example, well defined Slingram anomalies in the region of anomaly B, which would not be expected unless the depth of weathering were very much less than in the adjacent areas.

The following diamond drill holes have been logged radiometrically and electrically:

DDH 66-1, 66-2, 66-3, 66-5, 66-6, 66-7, 66-11, 66-12,
DDH 67-3, 67-4, 67-8.

No significant radiometric anomalies were found. The resistance logs reflect geology. Slates and sulphides are highly conductive, dolomite is resistant; weathered zones showed variable conductivity.

Only the results of DDH 66-3 are included in this report (Plate 12).

The self-potential logs of all diamond drill holes in the Woodcutters area have been studied in relation to the surface results. The holes were cased to a depth which prevented logs being made in places of most interest. However, it is apparent that in some cases, where drilling results were available, no source for the anomaly was found other than the major sulphide intersection.

DIAMOND DRILLING RESULTS

A surface projection of the L 5 mineralised zone is shown on Plate 3, a longitudinal projection of Plate 4, and drill hole sections on 192S, 200S, 204S, 208S, 212S, 216S, 220S and 224S on text figures at the end of this report. Lithological logs of all completed drill holes are given in Appendix 2, and analytical and assay results in Appendix 3.

LODE STRUCTURE

In the northern part of the L 5 Area (north of 212S), the lode appears to occupy a shear zone which strikes parallel to the axial plane of the anticline and dips west at about 80 degrees; the surface expression of this zone, as previously mentioned, consists of a gossan extending from about 208 to 204S, and a quartz reef from 204 to 200 S.

In the southern part of the area, the structural relations are more complex. The thickening of the lode in DDH 66-3 and its absence in DDHs 66-11 and 67-3 may be due to a dip reversal or to a repetition of the lode by drag-folding or faulting. DDH 67-10, being drilled on 216S in a westerly direction, is designed to elucidate this problem.

The position of the intersection in DDH 66-2, relative to the northern limit of the gossan outcrop, indicates a northerly pitch to the northern boundary of the mineralised zone, consistent with the postulated northerly pitch of the anticline in this area. However, no conclusions can be drawn at this stage regarding the trend of the southern boundary of this zone.

LITHOLOGY

The dominant rock type in all drill holes is carbonaceous slate, commonly more or less pyritic, and locally somewhat calcareous. However, highly calcareous rocks occur in the immediate vicinity of the lode in several holes. In DDH 66-3, the lode zone consists of carbonaceous slate, calcilutite and dololutite, in part showing evidence of intense small-scale deformation (? slumping), and in DDH 67-4 it consists of a micaceous band, probably derived from an originally calcareous rocks, intercalated between two layers of quartz. In two of the barren holes, DDH 66-5 at the north end and DDH 66-7 at the south end of the prospect, dolomite was intersected near the expected position of the lode zone, and in DDH 67-3 a carbonaceous calcilutite occurs in a corresponding position. In DDH 66-6 a dolomite band immediately underlies the lode, and in DDH 66-12 some 40 feet of pyritic dolomite occur about 100 feet above the lode.

Depth of weathering is somewhat variable. In most holes weathering is almost complete to a vertical depth of at least 100 feet, and some weathering effects extend to about twice this depth. The lode itself is strongly leached at a vertical depth of about 250 feet in DDH 66-2, and some oxidation is still present at a vertical depth of about 300 feet in DDH 66-1.

ASSAY PROCEDURES

Scrape samples have been collected from all cores, each sample representing one tray, or about 20 feet on the average, and these have been spectrographically analysed for Cu, Pb, Zn, Co, Ni, Sn, Cd, Bi, Ag, Cr, V, W, Mo, Ga, Ge, As, Sb, Mn, Be, and in some cases In and Nb. All sections containing appreciable visible mineralisation or returning high spectrographic results have also been split and assayed, generally in lengths of between three and five feet, for Cu, Pb, Zn, and where appropriate for Ag, Au, Co, Mo, Ni, Cd, As, Sb, P, S and acid soluble Fe.

In scrape sample 67120091 from DDH 66-11, anomalous Ag, Cd, Cu and Zn values were found to be due to contamination by silver solder; check analyses of this core section showed only background amounts of these metals, whereas a control sample to which a small amount of solder had been added deliberately (No. 67120253) showed major increases in Ag and Cd, and minor increases in Cu and Zn.

In some drill holes, sample intervals for assaying did not coincide exactly with the visually determined limits of the sulphide lode; the average values for these intersections (Table 1) are calculated from the assayed sections. All lengths of intersections are measured along the hole.

On the longitudinal projection (Plate 4), the average assay quoted for the intersection in DDH 66-3 is subject to a slight correction. The correct figures are given in Table 1.

LODE MINERALOGY

Only a preliminary study of the lode mineralogy has been undertaken to date. Among the sulphide minerals, pyrite, galena and sphalerite are the most abundant; chalcopyrite, arsenopyrite, boulangerite, tetrahedrite, jordanite and bourmonite have been noted in smaller amounts.

In general, the grain size ranges from about 0.25 mm to more than 2 mm. The coarser sections of the lode tend also to be rich in well-crystallised non-opaque gangue minerals, mainly calcite, quartz, sericite and muscovite, while finer-grained sulphide mineralisation is often, but not invariably, found in relatively unaltered carbonaceous slate. Banding, both by grain size and by composition, is developed in parts of some intersections, e.g. in DDH 66-3.

EXTENT OF PROVEN MINERALISATION AND METAL RATIOS

On the longitudinal projection (Plate 4) the approximate limits of the proven mineralisation are indicated, extending from at least 204S to 220S, and from a vertical depth of 300 to about 600 feet.

However, there is considerable variation in the metal ratios in different parts of this mineralised zone. Within the smaller area outlined on Plate 4, the three high-grade intersections in DDHs 66-3, 66-6 and 67-3 (the latter in a subsidiary lode), all show Zn : Pb about 2 : 1, somewhat less than one ounce of silver per ton for every one % lead, and significant cadmium. DDH 66-1 shows proportionately much lower lead and silver. No explanation can at present be advanced for the very different ratios in DDH 66-12, which shows moderately high silver associated with very low base metal values, and in DDH 67-8, which shows lead in excess of zinc, but with proportionately much lower silver content.

TARGETS REMAINING TO BE TESTED

No testing has been undertaken so far on gravity anomalies B and D, or on the south-western "tail" of the lead geochemical anomaly, which extends from 232S, 30E, to 238S, 24E.

PREVIOUS REPORTS

A list of unpublished reports covering various phases of the Bureau of Mineral Resources investigations in the Woodcutters L 5 Area is given under "References". These reports are not available for general distribution, but arrangements may be made to inspect relevant portions at the Bureau of Mineral Resources offices in Canberra and Darwin.

REFERENCES

- MALONE, E.J., 1962 - Explanatory Notes on the Darwin Geological Sheet, (1:250,000 Series). Bur. Min. Resour. Aust. Explan. Notes, D.52-4.
- RHODES, J.M., 1965 - The Geological Relationships of the Rum Jungle Complex. Bur. Min. Resour. Aust., Rep. 89.
- BUREAU OF MINERAL RESOURCES RECORDS
(Not available for general distribution).
- DODSON, R.G., & SHATWELL, D.O., 1965 - Geochemical and Radiometric Survey, Rum Jungle, Northern Territory, 1964. Bur. Min. Resour. Aust. Rec. 1965/254 (unpubl.)
- DUCKWORTH, K., 1966a - Rum Jungle Area, N.T. Electromagnetic and Radiometric Surveys, 1964. Bur. Min. Resour. Aust. Rec. 1966/98. (unpubl.)
- DUCKWORTH, K., 1966b - Rum Jungle East (Woodcutters and Coomalie Gap West areas) Geophysical Surveys, 1965. Bur. Min. Resour. Aust. Rec. 1966/99 (unpubl.).
- DUCKWORTH, K., FARROW, B.B., & GARDENER, J.E. - Rum Jungle East area, N.T., Test Geophysical Surveys, 1966. Bur. Min. Resour. Aust. Rec.; (in preparation).
- FARROW, B.B., 1967 - Report on E.M. and I.P. Test Surveys in the Rum Jungle East Area 1966. Bur. Min. Resour. Aust. Rec. (in preparation).
- LIVINGSTONE, D.F., 1959 - Airborne Radiometric Survey of the Rum Jungle Region, Northern Territory, 1957. Bur. Min. Resour. Aust. Rec. 1959/9. (unpubl.)
- MALONE, E.J., 1958 - The Geology of the Darwin-Adelaide River Area, N.T., Bur. Min. Resour. Aust. Rec. 1958/96 (unpubl.)
- SHATWELL, D.O., 1966 - Geochemical and Radiometric Investigations, Rum Jungle East Area, 1965 (Coomalie Gap West and Woodcutters Areas). Bur. Min. Resour. Aust. Rec. 1966/34. (unpubl.)
- WAHLAN WIRAKUSUMAH, 1967 - Geochemical and Radiometric Results from Three Areas, Woodcutters Prospect, Rum Jungle East, Northern Territory. Bur. Min. Resour. Aust. Rec. 1967/5. (unpubl.)
- WARIN, O.N., 1959 - Report of Investigation of Radiometric Anomalies discovered by Auster Aircraft in the Rum Jungle District, Northern Territory. Bur. Min. Resour. Aust. Rec. 1959/18. (unpubl.)

TABLE I

SUMMARY OF DIAMOND DRILLING RESULTS; WOODCUTTERS L5 PROSPECT

Hole	Co-ord's.		Depress- ion	Total Depth (feet)	Intersec- tion (feet)	Width down hole (feet)	% Pb	% Zn	% Cu	% Ag	% Cd	Remarks
66/1	208	42	50°W	474	419 - 440	21	0.19	6.29	0.02	0.70	N.D.	Also 377'-383': 6' averaging 7.6% Pb, 0.34% Zn
66/2	204	38	60°E	352	277 - 299	22	1.98	0.73	0.01	0.24	N.D.	Includes 12' averaging 2.91% Pb, 0.99% Zn, 0.4oz. Ag/ton.
66/3	220	33	60°E	646	508 - 587	79	9.12	19.39	0.07	7.78	0.15	- - - - - above
66/5	192	37	60°E	487	?383 - 404	..	..	..	..	..	..	No base metal values/300 ppm. (0.03%).
66/6	216	35	60°E	572	518 - 539	21	8.50	16.70	0.11	5.67	0.14	- - - - -
66/7	224	33	60°E	652	?514 - 517	..	..	..	..	..	..	Maximum base metal values 0.35% Zn, 0.05% Pb, 0.02% Cu.
66/11	220	33	75°E	1015	... ..	..	..	..	..	..	..	No base metal values above 250 ppm. (0.025%).
66/12	212	36	65°E	775	665 - 695	30	1.88	0.16	0.26	7.41	0.01	Includes 15' averaging 1.02% Pb, 0.12% Zn, 13.52 oz.Ag/ton.
67/3	216	35	75°E	916	464 - 470	6	7.00	13.65	0.02	5.40	0.10	This intersection is 150' west of projected position of main lode.
67/4	200	36	65°E	716	610 - 625	..	..	..	..	..	..	Maximum base-metal values 0.04% Cu, 0.01% Pb, 0.02% Zn.
67/8	204	35	65°E	790	741 - 755	14	18.70	7.58	0.43	3.77	0.06	Includes 9' averaging 27.87% Pb, 11.67% Zn, 5.43 oz.Ag/ton.
67/10	216	42	75°W	...	.. ..	..	..	..	..	..	..	In progress. 765 feet at 16/11/67.

APPENDIX 1

AUGER DRILLING RESULTS

L5 ANOMALY

WOODCUTTERS AREA.

Auger drill samples are listed by co-ordinate position and sample number. Samples were analysed at AMDEL by Atomic Absorption Spectrophotometer. Auger holes were probed (Harwell 1368A ratemeter) for radioactivity. The maximum radioactivity and, where this exceeds 0.03 mR/Hr, the depth at which it was recorded, are listed for each hole.

Samples were taken from the bottom of the auger hole or at the depths indicated. Some mattock samples are included and these are indicated by enclosing the analytical results in brackets.

<u>Sample NO.</u>	<u>Co-ordinate Position</u>		<u>Cu</u> (p.p.m.)	<u>Pb</u> (p.p.m.)	<u>Sample Depth (ft)</u>	<u>Radioactivity</u> mR/Hr
124959	180S	24E	77	28	12	.017
60		26E	100	40	12	.014
61		28E	100	28	15	.014
62		30E	42	15	11	.018
63		32E	70	40	15	.014
64		34E	77	53	7	.016
65		36E	148	28	17	.019
66		38E	74	68	11	.016
67		40E	110	40	17	.015
68		42E	85	28	9	.015
69		44E	58	40	17	.018
70		46E	115	40	17	.013
124971	180S	48E	81	68	13	.016
124181	184S	24E	42	40	17	.016
80		26E	110	15	11	.015
79		28E	66	15	17	.014
78		30E	103	28	17	.020
125177	184S	32E	95	-10	11	.016

<u>Sample No.</u>	<u>Co-ordinate Position</u>		<u>Cu (p.p.m.)</u>	<u>Pb (p.p.m.)</u>	<u>Sample Depth (ft)</u>	<u>Radioactivity mR/Hr</u>
125176	184S	34E	27	15	11	.014
75		36E	148	68	11	.017
74		38E	70	15	17	.016
73		40E	89	53	11	.014
75		42E	50	-10	17	.015
74		44E	62	-10	17	.015
73		46E	103	40	17	.015
124972	184S	48E	160	93	17	.014
125190	188S	24E	131	53	17	.013
91		26E	70	68	12	.014
92		28E	81	28	17	.014
93		30E	66	15	11	.016
94		32E	80	28	14	.015
95		34E	120	40	17	.015
96		36E	77	40	6	.012
97		38E	62	68	11	.014
98		40E	91	325	17	.015
99		42E	35	53	17	.013
125200		44E	91	53	17	.013
01		46E	77	68	17	.015
125202	188S	48E	62	-;0	14	.017
125209	192S	24E	77	40	5	.013
08		28E	124	28	5	.013
07		32E	46	-10	5	.014
06		36E	54	28	5	.012
05		40E	96	115	5	.011
04		44E	77	40	5	.011
125203	192S	48E	120	15	5	.014
125216	196S	24E	54	28	16	.019
17		26E	54	15	13	.020
18		28E	50	15	14	.015
19		30E	46	28	17	.016
20		32E	96	40	17	.016
21		34E	106	40	16	.017
22		36E	46	40	11	.015
23		38E	91	53	17	.018
24		40E	28	15	17	.014
25		42E	129	130	11	.015
26		44E	46	68	11	.015
27		46E	85	68	11	.015
125228	196S	48E	172	53	11	.015

<u>Sample No.</u>	<u>Co-ordinate</u> <u>Position</u>		<u>Cu</u> <u>(p.p.m.)</u>	<u>Pb</u> <u>(p.p.m.)</u>	<u>Sample</u> <u>Depth (ft)</u>	<u>Radioactivity</u> <u>mR/Hr</u>
125241	200S	24E	62	35	5	.011
40		26E	42	28	7	.015
39		28E	115	15	6	.011
38		30E	85	28	7	.015
37		32E	120	-10	11	.017
36		34E	89	53	6	.011
35		36E	58	-10	7	.014
34		38E	106	28	11	.014
33		40E	77	940	4	.011
32		42E	100	240	17	.016
31		44E	50	80	11	.017
30		46E	28	68	11	.013
125229	200S	48E	62	40	11	.013
125250	204S	24E	48	20	9	.018
51		26E	52	27	11	.015
52		28E	82	20	17	.014
53		30E	30	35	11	.016
54		32E	36	20	12	.012
55		34E	40	20	12	.013
56		36E	36	54	11	.016
57		38E	48	320	17	.014
58		40E	52	3160	15	.016
59		42E	25	920	17	.016
60		44E	52	60	11	.017
124809		46E	(52)	(95)	1	-
124810	204S	48E	(55)	(75)	1	-
125274	208S	24E	988	27	16	.019
73		26E	34	42	16	.017
125266		28E	25	20	17	.013
125272		30E	38	27	17	.017
71		32E	34	35	17	.015
70		34E	43	35	17	.015
65		36E	34	35	17	.015
64		38E	80	272	11	.015
63		40E	384	7340	5	.018
62		42E	48	305	17	.013
61		44E	26	54	11	.015
125269	208S	46E	(25)	(68)	1	-
125283	212S	24E	25	20	17	.017
84		26E	80	20	17	.016
85		28E	20	12	11	.017

<u>Sample No.</u>	<u>Co-ordinate Position</u>		<u>Cu (p.p.m.)</u>	<u>Pb (p.p.m.)</u>	<u>Sample Depth (ft)</u>	<u>Radioactivity mR/Hr</u>
125206	212S	30E	34	20	17	.017
87		32E	27	-10	17	.016
88		34E	105	46	17	.018
89		36E	27	286	11	.020
90		38E	30	540	17	.019
91		40E	58	760	11	.016
92		42E	30	540	10	.019
125293	212S	44E	75	46	11	.018
125298	216S	24E	50	46	5	.019
97		28E	25	46	5	.016
96		32E	71	60	5	.018
95		36E	62	305	5	.018
125294	216S	42E	58	60	5	.018
125410	220S	24E	64	-10	17	.017
09		26E	66	15	17	.018
08		28E	58	25	15	.020
07		30E	82	40	17	.016
06		32E	28	60	23	.019
05		34E	46	250	17	.016
04		36E	95	1840	13	.017
03		38E	82	850	17	.018
02		40E	42	270	6	.010
01		42E	30	25	14	.015
125267	220E	44E	54	42	12	.016
125419	224S	24E	66	25	17	.015
20		26E	39	15	16	.020
21		28E	42	30	17	.015
22		30E	72	75	17	.016
23		32E	58	45	17	.016
24		34E	42	45	17	.017
25		36E	72	1000	17	.016
26		38E	58	950	6	.015
27		40E	46	121	11	.015
28		42E	30	45	11	.015
125429	224S	44E	39	25	17	.014
125305	228S	24E	55	136	11	.020
06		26E	36	46	11	.017
07		28E	63	130	17	.018
08		30E	60	80	16	.018

<u>Sample No.</u>	<u>Co-ordinate</u> <u>Position</u>		<u>Cu</u> <u>(p.p.m.)</u>	<u>Pb</u> <u>(p.p.m.)</u>	<u>Sample</u> <u>Depth (ft)</u>	<u>Radioactivity</u> <u>mR/Hr</u>
125309	228S	32E	68	75	6	.016
10		34E	71	130	12	.018
11		36E	100	1390	17	.020
12		38E	68	69	11	.019
13		40E	63	60	8	.016
14		42E	89	30	17	.019
125315	228S	44E	63	55	11	.020
125339	232S	24E	40	76	10	.013
38		26E	20	25	11	.016
37		28E	60	100	11	.018
36		30E	40	250	11	.015
35		32E	33	184	11	.017
34		34E	52	84	11	.016
33		36E	40	110	17	.018
32		38E	52	147	11	.018
31		40E	48	40	11	.016
125330	232S	42E	105	25	11	.020
125325	236S	24E	36	76	11	.016
24		26E	55	405	17	.021
23		28E	52	139	12	.019
22		30E	26	15	23	.017
21		32E	55	30	11	.014
20		24E	60	30	11	.018
19		36E	36	10	17	.018
18		38E	36	25	17	.018
17		40E	85	60	14	.013
125316	236S	42E	82	76	11	.019
125435	240S	24E	83	84	5	.010
34		26E	46	40	5	.010
33		32E	34	40	11	.015
32		36E	124	60	5	.011
31		40E	50	40	5	.010
125430	240S	44E	46	60	17	.022

The following geochemical results were recorded by the 1964 Geochemical Survey, on reconnaissance traverses spaced at 2400 feet, and fall within the L5 Anomaly. Results (p.p.m.) are from AMDEL and were obtained by Optical Emission Spectrograph.

<u>Sample No.</u>	<u>Co-ordinate Position</u>		<u>Cu</u>	<u>Pb</u>	<u>Co</u>	<u>Zn</u>	<u>Ni</u>	<u>Mo</u>	<u>Sample Depth (ft)</u>
120790	192S	24E	60	20	10	60	40	10	17
89		26E	30	15	6	40	25	6	17
88		28E	30	20	5	30	15	10	17
87		30E	50	30	50	40	30	10	23
86		32E	600	30	40	80	150	12	17
85		34E	20	15	3	30	12	4	17
84		36E	20	20	5	25	15	3	17
83		38E	25	25	15	50	25	15	17
82		40E	60	20	6	200	15	5	22
81		42E	20	150	5	100	15	6	24
80		44E	20	12	12	500	15	2	17
79		46E	30	18	8	200	15	2	23
120778	192S	48E	50	40	20	100	30	25	23
120858	216S	24E	20	20	3	60	30	10	17
57		26E	20	10	2	20	8	8	17
56		28E	15	40	10	20	15	19	14
55		30E	80	40	10	30	25	12	17
54		32E	15	10	10	30	15	-1	50
53		34E	20	40	2	40	15	3	17
52		36E	30	250	3	50	8	5	23
51		38E	30	300	3	300	8	6	22
50		40E	25	2000	5	40	8	15	29
49		42E	15	150	6	80	15	7	17
48		44E	15	15	8	60	15	7	17
47		46E	15	10	10	30	20	6	17
120846	216S	48E	20	15	5	80	15	6	17
120926	240S	24E	25	30	4	50	30	3	16
25		26E	10	8	2	-20	10	2	15
24		28E	15	20	3	30	10	1	23
23		30E	15	8	30	40	15	-1	23
22		32E	30	15	2	50	15	-1	17
21		34E	70	50	20	400	25	7	11
20		36E	25	10	10	100	20	3	23
19		38E	40	8	5	40	15	2	11
18		40E	50	12	30	70	30	8	17
17		42E	20	12	25	70	30	3	17
16		44E	20	12	7	40	20	2	29
15		46E	30	18	8	30	12	7	11
120914	240S	48E	30	15	7	30	15	7	12

APPENDIX 2.

LITHOLOGICAL LOGS OF DIAMOND DRILL HOLES.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT. *RUM JUNGLE AREA 1965-66* REMARKS.....
 HOLE No. *B.M.B. 66-1* CO-ORDINATES *208.5 42E Rum Jungle East Grid* R.L. *GROUND* Depth *474 feet*
 LOCATION *Woodcutters Area* ANGLE FROM HORIZONTAL *50°* DIRECTION *N*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT O CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
<i>Soil and completely weathered rock, chiefly clay. Colour ranges through brown, yellow, purple</i>							
<i>Weathered rock, mostly soft clay, yellow, grey, pink, Bedding not recognisable</i>							
<i>Similar but getting slightly harder. Some dark grey (carbonaceous) porous weathered rock, Bedding occasionally recognisable</i>							

0'
 60'
 100'
 160'
 200'

No Core
 97
 98
 20°
 35°

DRILL NO. *A1000*
 TYPE *Mindrill*
 DRILLER *J. Jansen*
 COMMENCED *Feb 66*
 COMPLETED *2.5.66*

EXPLANATION
 CASING IN HOLE DURING DRILLING *20 ft. to an inch*
 REFERENCES
Py - Pyrite 60° Bedding
Qz - Quartz (55°) Cleavage } *Angle with normal to core*

HEAD OFFICE
 LOGGED BY *C.E.P.*
 DRAWN BY
 CHECKED BY
 SHEET *1* OF *4*
 DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT RUM JUNGLE AREA 1965-66

REMARKS

HOLE No. B.M.R. 66-1CO-ORDINATES 2083 ARE Rum Jungle East Gr. GROUND Depth 474 feetLOCATION Woodcutters 1-28ANGLE FROM HORIZONTAL 50° DIRECTION W

200'

300'

400'

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT O CORE RE COVERY %	SA # LES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
205' Weathered porous black rock (ex black slate)		Nx	20°				
			30°				
229' cavity					92		
234' vuggy limonite, trace Py.		Bx					
240' Gradation							
Black slate weathered Py < 1%			65°				
251' Qtz. veins 1/2"			60°				
265' limonite, trace Py. 1'							
			60° (55°)		98		
			60°				
340' Black slate slightly calcareous Py < 1%							
352' Qtz. vein 1/2" Py 5%					100		
374' Qtz. vein 1/2" Py 10%, Gelsine 10%			55°				
38' Black slate not calcareous, weathered							
378' Cerussite					98		
396' 6' ? sheared gelsine on joint.							

Tropert 350'
- 41° at 271°DRILL NO. A1000
TYPE MindrillEXPLANATION
CASING IN HOLE DURING DRILLING 20 ft. to an inch

HEAD OFFICE

DRILLER J. Jansen
COMMENCED
COMPLETED 2.5.68REFERENCES
Py - Pyrite
Qtz - Quartz
60° Bedding } angle with
(55°) cleavage } normal to coreLOGGED BY C.E.P.
DRAWN BY
CHECKED BY
SHEET 2 OF 4
DRAWING NO.

BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *RUM JUNGLE AREA 1965-66*

REMARKS

HOLE No. *B.M.P. 66-1*

CO-ORDINATES

2083 42E Rum Jungle East

GROUND

Depth *174 feet*LOCATION *Woodcutters Area*

ANGLE FROM HORIZONTAL

*50°*DIRECTION *W*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT 8 CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
104'							
407' Black slate Py 40%				98			
Fine grained Py with black slate matrix (40%) Galena present 425' - 427'				98		400' - 450' see sheet A	
429'6"				98			
Black slate weathered in part, Py irregular but decreasing							
438'							
Black slate, slightly calcareous. Disseminated blebs of Py and carbonate			45° (55°)			Tropari 450' -37° at 271°	
		BX		100			
474'							
Total Depth							
Golden Dyke Formation throughout.							
Bedding and cleavage in opposite directions (along core)							

DRILL NO. *A1000*TYPE *Minidrill*

EXPLANATION

CASING IN HOLE DURING DRILLING

20 ft. to 87 inch

HEAD OFFICE

LOGGED BY

C.E.P.

DRAWN BY

CHECKED BY

DRILLER *J. Jensen*

COMMENCED

COMPLETED *2.5.66*

REFERENCES

*Py. - Pyrite 60° Bedding } angle with normal
Qtz. - Quartz (55°) Cleavage } to core.*SHEET *3* of *4*

DRAWING NO.

BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *RUM JUNGLE AREA 1965-66* REMARKS
 HOLE No. *B.M.R. 66-1* CO-ORDINATES *2085 42E Rum Jungle East Gr. GROUND* Depth *474 feet*
 LOCATION *Woodcutters Area* ANGLE FROM HORIZONTAL *50°* DIRECTION *N*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT 6 CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS			
	CASING	SIZE OF CORE					Cu %	Pb %	Zn %	Ag. oz./t ₂
<i>Black slate, irregularly weathered, Py rare</i>										
<i>404'6" Black slate, Pyrite, Py ranges from 5% to 60%</i>			<i>404'</i>							
<i>407' Massive Pyrite with black slate matrix Py averages over 50%</i>			<i>407'</i>							
			<i>410'</i>							
			<i>413'</i>							
<i>415'6" Galena visible on joint</i>			<i>416'</i>							
			<i>419'</i>							
<i>420' 420' } weathered porous mostly Py. ?cerussite</i>			<i>422'</i>							
			<i>425'</i>							
<i>42' } weathered - ?cerussite Galena forms matrix to Py.</i>			<i>428'</i>							
<i>429'6" Black slate, broken irregularly weathered Py 1% to 30% av. C. 5% 430' - 433'6" veins 1/2" ?cerussite</i>			<i>431'</i>							
<i>Black slate, fresh Py + carbonate blebs < 1%</i>			<i>434'</i>							
<i>437' Black slate, weathered broken ?cerussite 1" veins</i>			<i>437'</i>							
<i>440' Black slate, fresh Py + carbonate blebs < 1%</i>			<i>440'</i>							
			<i>443'</i>							
			<i>446'</i>							

DRILL NO. *A1000*TYPE *Mindrill*

CASING IN HOLE DURING DRILLING

EXPLANATION

5 ft. to an inch

HEAD OFFICE

LOGGED BY

C.E.P.

DRAWN BY

CHECKED BY

DRILLER *J. Jensen*

COMMENCED

COMPLETED *2.5.66*

REFERENCES

*Py: Pyrite**Qz: Quartz*

SHEET

OF

25

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *RUM JUNGLE AREA 1966*

REMARKS

HOLE No. *B.M.R. 66-2*CO-ORDINATES *2045 38E Rum Jungle East Grid*GROUND Depth *352'*LOCATION *Woodcutters Area*ANGLE FROM HORIZONTAL *60°*DIRECTION *E251*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT A CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
No Core				Nil			
30'							
Completely weathered material. Red, pink, yellow and brown, some pale grey c. 105'			NX				
				93%			
100'							
140'							
Pale to dark grey well weathered rock. Core fragmentary and parts along closely spaced bedding planes			BX				
				90%			
179'							
Dark grey to black carbonaceous slate partly weathered.							
196'6" - 3' Quartz, no mineralization				92%			
200'							

NO *A1000*

EXPLANATION

HEAD OFFICE

CASING IN HOLE DURING DRILLING

LOGGED BY

*C.E.P.*DRILLER *J. Jansen*

REFERENCES

DRAWN BY

COMMENCED *6-5-66*

CHECKED BY

COMPLETED *10-6-66*SHEET *1* OF *3*

DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *RUM JUNGLE AREA 1966*

REMARKS

HOLE No. *B.M.R. 66-2*CO-ORDINATES *2045 38E Rum Jungle East Grid*Depth *352'*LOCATION *Woodcutters Area*ANGLE FROM HORIZONTAL *60°* DIRECTION *East*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
200' <i>Carbonaceous slate Partly weathered</i>							
220' <i>Carbonaceous slate not weathered, calcareous, Scattered small (< 1/20") Py + Carbonate blebs</i>							
221' & 249' <i>3' cherty band: +10% Py. Few Py veins to 1/10"</i>		<i>BX</i>		<i>98</i>			
276'6" <i>Weathered porous</i> 279'11" <i>carbonaceous slate</i>				<i>90</i>			
<i>Lode</i> <i>See Sheet 3</i>				<i>87</i>			
300' 299' <i>Carbonaceous slate fresh minor Py.</i>							
309'-312' <i>Silicified brecciated in parts</i>							
322'3"-322'9" <i>silicified micro breccia</i> <i>Few Py veins to 1/10"</i>				<i>98</i>			
<i>Golden Dyke Formation throughout Tropari Survey. Azimuth. Depression</i>							
<i>Collar:</i>							
<i>245' :</i>	<i>90°</i>	<i>60°</i>					
<i>325' :</i>	<i>91°</i>	<i>54°</i>					
	<i>95°</i>	<i>52°</i>					

COMMENCED COMPLETED <i>10.6.66</i>	CASING IN HOLE DURING DRILLING <i>H</i> <i>1" - 20'0"</i>	EXPLANATION REFERENCES	HEAD OFFICE LOGGED BY <i>C.E.P.</i> DRAWN BY CHECKED BY SHEET <i>2</i> OF <i>3</i> DRAWING NO.
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GEOLOGICAL LOG OF DRILL HOLE

PROJECT *RUM JUNGLE AREA 1966*

REMARKS

HOLE No. *B.M.R. 66-2*CO-ORDINATES *2043 38E. Rum Jungle East Grid*GROUND Depth *352'*LOCATION *Woodcutters Area*ANGLE FROM HORIZONTAL *60°* DIRECTION *East*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS		ASSAYS	
	CASING	SIZE OF CORE				<i>Cu %</i>	<i>Pb %</i>	<i>Zn %</i>	<i>Ag g/tm</i>
279' Weathered porous carbonaceous slate			277'		66/250/4	-0.008	2.40	2.45	-0.1
279'11" Weathered Py lode largely Fe oxides			280'						
281' Pyritic lode with carbonaceous matrix. Galena as matrix to pyrite 284'-285'			283'		66/250/5	0.080	5.15	0.77	1.3
					66/250/6	0.010	2.90	0.22	0.2
285'10" Weathered Pyritic lode Py + Fe oxides			BX 286'						
286'8" Weathered black slate, minor graphite Fe oxide stained.					66/250/7	-0.005	1.20	0.50	-0.1
288'6" Weathered black slate, Fe oxide impregnated			289'						
290'10-15% Py					66/250/8	-0.008	0.83	0.54	-0.1
290'6" Weathered black slate, closely fractured			292'						
293'6" Weathered black slate, Fe oxide impregnated.					66/250/9	-0.005	0.90	0.40	0.1
295' Weathered black slate			296'						
296'0" Weathered black slate					66/250/20	-0.006	0.51	0.60	0.1
299' 299'0"			299'						

Drawn No. *11000*
 TYPE *Handwritten*
 DRILLER *J. Jensen*
 COMMENCED
 COMPLETED *10.6.66*

CASING IN NOW DURING DRILLING

EXPLANATION

REFERENCES

1" = 2'0"

HEAD OFFICE

FORWARDED BY *C.A.P.*

DRAWN BY

CHECKED BY

SHEET *3* OF *3*

DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

REMARKS

HOLE No. *B.M.R. 66-3* CO-ORDINATES *2205 33E Rum Jungle East Gr.* FL-GROUND *Depth 646.5 ft.*

LOCATION Woodcutters Area ANGLE FROM HORIZONTAL 60° DIRECTION E (grid)

DESCRIPTION OF CORE

R.L.
CASINO

DEPTH	
SIZE OF CORE	

Log

**LIFT
&
CORE
RE
COVER**

SAMPLES

REMARKS

ASSAYS

Core not requested
Completely weathered
rock mostly
yellow and pink

No
Core

Very well weathered
rock. Dominantly
yellow and salmon,
in places
pale dirty gray.

UX

86

Carbonaceous slate.
Weathering varies.
Gray - dark grey - black
Light and porous in
part. Py. mostly
weathered.

BXD

93

DRILL NO *A1000*

TYPE *Model 11*

EASING IN HOLE DURING DRILLING

EXPLANATION

74-201

HEAD OFFICE

LOGGED BY

100

DRAWN BY

CHECKED BY

SHEET...

DRAWING **M**

DRILLER *J. Jansen*

Py · Pyrite

REFERENCES

COMMENCED 18:6:66...

Gal - Galena

COMPLETED 19:8:66...

Sph. - Sphalerite

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *Rum Jungle Area 1966*

REMARKS

HOLE No. *B.M.R. 66-3*CO-ORDINATES *220.6 33E Rum Jungle East*Depth *646.5 ft.*LOCATION *Woodcutters Area*ANGLE FROM HORIZONTAL *60°* DIRECTION *E (Grid)*

DESCRIPTION OF CORE

R.L.
CASINGDEPTH
SIZE OF
CORE

LOG

LIFT
CORE
RE
COVERY
%

SAMPLES

REMARKS

ASSAYS

200

*Carbonaceous slate
weathered**Bx**93**becoming less
weathered**245 1/2' Qtz. vein, vuggy, barren**6"**250'**Fresh black
carbonaceous slate
pyritic, calcareous**30°*

300

*98**30°*

400

*399'-401' abundant
calcareous lenticles*DRILL NO. *A1000*TYPE *Mindril*

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 20'

HEAD OFFICE

LOGGED BY

C.E.P. 8.

DRAWN BY

D.O.B.

CHECKED BY

SHEET *2* OF *7*

DRAWING NO.

DRILLER *J. Janzen*COMMENCED *18.6.66*COMPLETED *19.8.66*

REFERENCES

*30° angle between bedding
and normal to core axis*

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *Rum Jungle Area 1966*

REMARKS

HOLE No *B.M.R. 66-3*CO-ORDINATES *2205 33E Rum Jungle East Grid*LOCATION *Woodcutters Area*DEPTH *646.5 ft.*ANGLE FROM HORIZONTAL *60°*DIRECTION *E (grid)*

DESCRIPTION OF CORE

R.L.

DEPTH

LOG

LIFT
OF
CORE
RE
COVERY
%

SAMPLES

REMARKS

ASSAYS

Carbonaceous slate

411'6" Calcite 3"

Graphite on many
joints

BX

20°

15°

15°

457'

Carbonaceous slate
with pale calcareous
bands (1"3") becoming
more numerous.Py increasing and
forming aggregates.
Bleb of Galena 477½'

488'

Dolomite carbonaceous at top
Py irregular but abundant.
Vuggy cerussite at base

496'

Cavity

502'

Dolomite, carbonaceous
& calcareous, Py variable.

508'10"

Pyrite - Galena - Sphalerite
lode, mostly gangueSee detailed
log sheets 5 to 7

45°

65°

50°

99

No
Core

97

99

97

583'

Interbedded calcilutite,
carbonaceous calcilutite,
and calcareous carbonaceous
slate, slumped in places.
Sphalerite, Galena & Py 7" at 587'DRILL NO *A1000*DATE *March 1967*

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 20'

HEAD OFFICE

DRAWN BY

2152

CHECKED BY

SHEET 3

OF 7

DRAWING NO.

DRILLER *J. Jensen*COMMENCED *18.6.66*COMPLETED *19.8.66*

REFERENCES

45° angle between bedding and normal
to core axis.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *Rum Jungle Area 1966*

REMARKS

HOLE No. *B.M.R. 66-3*

CO-ORDINATES

*220S 33E Rum Jungle East*LOCATION *Woodcutters Area*

ANGLE FROM HORIZONTAL

*60°*DIRECTION *E (grid)*

600

646½

DESCRIPTION OF CORE	R.L. CASINO	DEPTH SIZE OF CORE	LOG	LIFT & CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
603' <i>Py variable</i>		<i>BX</i>					
<i>Carbonaceous slate</i>			<i>30°40°</i>				
<i>minor very thin</i>				<i>97</i>			
<i>calcilutite bands</i>			<i>25°</i>				
<i>Py minor</i>							
<i>Total Depth 646.5 ft.</i>							
<i>Golden Dyke Formation throughout</i>							
<i>Tropari Survey</i>							
<i>250' - 52° 074°</i>							
<i>450' - 42° 085°</i>							
<i>620' - 37° 091°</i>							
<i>(N.B. 074° at 250' disregarded)</i>							
<i>Electric Logs run from 50' to total depth</i>							
<i>Radiometric Log run from 270' to total depth</i>							

DRILLER <i>J. Jensen</i>	EXPLANATION <i>30° angle between bedding and normal to core axis.</i>	HEAD OFFICE
COMPLETED <i>19.8.66</i>	REFERENCES	LOGGED BY <i>S.E.S.</i>
		DRAWN BY
		CHECKED BY
		SHEET <i>A</i> OF <i>7</i>
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *Rum Jungle Area 1966*

REMARKS

HOLE No. *B.M.R. 66-3*

CO-ORDINATES

*2205 33E Rum Jungle East*LOCATION *Woodcutters Area*

ANGLE FROM HORIZONTAL

*60°*DIRECTION *E (90°)*

480

490

500

520

530

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS		
	CASING	SIZE OF CORE							
Carbonaceous slate calcareous. Py general but irregular and <5% except last few feet. Bleb of Gal. at 487'9"		BX				Cu %	Pb %	Zn %	Ag. oz/tn
		482'6"							
				66125037					
		99				0.005	0.05	0.02	0.8
488'0"		487'6"							
Dololutite, carbonaceous at top. Py irregular but abundant (to 30%) Vuggy near base ?cerussite in vugs.				38					
		99				0.045	1.15	2.50	0.01
		492'8"							
				39					
	99					0.005	0.05	0.01	0.1
496'									
Cavity				N I L					
502'									
Dololutite, carbonaceous and calcareous Py variable.				98	(39)				
		503'10"		66125040					
						0.010	0.10	0.06	0.1
508'10"		508'10"			41				
Massive Py. Minor disseminated Gal (5%) Some calcite						0.060	1.30	0.20	4.8
		514'10"							
				42					
Largely Py. Calcite and Gal. variable minor Sph.						0.050	2.65	4.38	0.6
		520'11"			43				
						0.115 (0.14)	8.65 (8.86)	19.2 (19.3)	2.4
523'11"		523'11"			44				
						0.200 (0.21)	13.3 (16.3)	24.2 (25.5)	6.0
		526'11"			45				
						0.060	8.05	34.6	1.2
527'3"		528'3"							
Carbonaceous slate and calcite, Py, Gal, Sph,									

DRILL NO. *A1000*TYPE *Hand Drill*

RAINING IN HOLE DURING DRILLING

EXPLANATION

1" = 5'

HEAD OFFICE

LOGGED BY

D. O. B.

DRAWN BY

CHECKED BY

DRILLER: *J. Jansen*

REFERENCES

COMMENCED *18.6.66*COMPLETED *19.8.66*

() Check assays

SHEET *5* OF *7*

DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *Rum Jungle Area 1966*

REMARKS

HOLE No. *B.M.R. 66-3* CO-ORDINATES *2208 33E Rum Jungle East* GRADING *Depth 646.5 ft.*LOCATION *Woodcutters Area* ANGLE FROM HORIZONTAL *60°* DIRECTION *E (grid)*

530'	Py, slate gangue with calcite. Gal. throughout Sph. in places	533'3"	66/25046	Cu % 0.07	Pb % 5.95	Zn % 24.0	Ag. oz./tn <0.1
535'9"	Py and Gal. Carbonate gangue White ? Pb. mineral on joints	538'3"	66/25047	0.190	5.00	23.3	1.5
540'		543'3"	48	0.010 (2.01)	2.10 (2.12)	4.1 (4.67)	1.1
		548'3"	49	0.040	6.15	16.1	4.3
550'	Py, Gal, Sph, variable calcareous gangue minor carbonaceous slate very minor chalcopyrite 549' - 550'	553'3"	50	0.100 (0.11)	5.00 (4.19)	39.4 (35.7)	5.8
		558'6"	51	0.030	6.50	15.4	1.3
560'	Carbonaceous slate Py throughout Calcite variable Gal. and Sph. variable ? slump breccia 561½' - 562½'	561'6"	52	0.005	3.15	14.7	3.0
		564'0"	53	0.120 (0.11)	51.5 (48.8)	11.0 (10.7)	49.4
570'	Fine grained Py and Gal. Calcareous gangue Some Sph. and trace ? Bornite	569'6"	54	0.020	10.0	31.2	6.6
	shaley at base	574'6"	55	0.030	4.45	35.2	4.5
580'	Sph. and Gal. in calcareous matrix Py variable Slumping and slump breccia about 572'	579'6"	56	0.030 (0.03)	16.0 (14.2)	32.4 (32.8)	28.5

DRILL NO. *A1000*TYPE *Mindrill*

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 5'

HEAD OFFICE

LOGGED BY

D.E.P. 9

DRAWN BY

CHECKED BY

DRILLER *J. Jansen*

REFERENCES

COMMENCED *18.6.66*COMPLETED *19.8.66*

() check assays

SHEET *6* OF *7*

DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *Rum Jungle Area 1966* REMARKS
 HOLE No. *B.M.P. 66-3* CO-ORDINATES *2205 33E. Rum Jungle East Grid* Depth *646.5 ft.*
 LOCATION *Woodcutters Area* ANGLE FROM HORIZONTAL *60°* DIRECTION *E. (Grid)*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS	ASSAYS
	CASINO	SIZE OF CORE					
580							
583'0"			BX	66125057		Cu % 0.04 (0.04)	Pb % 40.9 (41.0)
White and pale grey calcilutite and dark grey carb. slate. 3" Sph + Gal. at 587' silicified at base			585'0"	66125058		0.010	4.30
587'6"				59			4.1
590							
Alternating dark grey carbonaceous slate and pale calcilutite slumped and partly slumped. Thin calcite veins. Py irregular <5%			592'6"			-0.005	0.03
							0.03
							4.01
600							

DRILL NO *A1000*
 TYPE *Mindrill*

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 5'

HEAD OFFICE

LOGGED BY *E.B.P. 9*DRAWN BY *D.O.S. 9*

CHECKED BY

SHEET *7* OF *7*

DRAWING NO.

DRILLER *J. Jansen*COMMENCED *18.6.66*COMPLETED *19.8.66*

REFERENCES

() check assays

GEOLOGICAL LOG OF DRILL HOLE

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT # CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASINO	SIZE OF CORE					

DRILL NO. <i>A1000</i>	EXPLANATION	HEAD OFFICE	
TYPE <i>Mindrill</i>	CASING IN HOLE DURING DRILLING <i>H</i>	LOGGED BY	<i>D.O.S.</i>
	<i>1" - 20'</i>	DRAWN BY	
	REFERENCES	CHECKED BY	
DRILLER <i>Ausdrill</i>		SHEET	<i>1</i> OF <i>5</i>
COMMENCED <i>1-9-66</i>		DRAWING NO.	
COMPLETED <i>2-11-66</i>			

GEOLOGICAL LOG OF DRILL HOLE

PROJECT WOODCUTTERS AREA REMARKS RUM JUNGLE DISTRICT N.T.
 HOLE NO. DDH-GG-5 CO-ORDINATES 1923 37E. Rum Jungle East Grid R.L. GROUND Length 487'
 LOCATION _____ ANGLE FROM HORIZONTAL 60° DIRECTION E

200'

weathered porous.
SLATE

214'

calcareous Pyritic

CARBONACEOUS SLATE.

many voids present,
and limonitic spots
after Pyrite.

Minor chalcopyrite

110' black clayband at

222' Voids end 261'

shearing // to core axis
292'.

300'

314'-315 core broken

339'6" core broken

344'-345 core broken.

below fingers 40° to
core normal.

shearing with
35° to core
(core broken).

DOLOMITE.

see serial log sheet 485).

98

15°
bedding?

5°

20°

25°

98

BX

20°

15°

10°

15°

12°

17°

96

11000

11000

11000

11000

11000

EXPLANATION

1" = 20'

REFERENCES

25° bedding - Angle measured to core normal.

HEAD OFFICE

LOGGED BY D.O.S.

DRAWN BY

CHECKED BY

SHEET 2 OF 5

DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT WOODCUTTERS AREA REMARKS RUM JUNGLE DISTRICT N.T.
 HOLE No. D.D.H. 66-5 CO-ORDINATES 1923. 37E. Rum Jungle East Grid R.L. GROUND Length 487'
 LOCATION _____ ANGLE FROM HORIZONTAL 60° DIRECTION E

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT B CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
404'				96			
Dark grey calcareous CARBONACEOUS SLATE.							
411'-419' core broken.							
422' calcite stringers in } shears 60° to core normal							
428'-432' calcite-Pyrite lenticles 15° to core normal.			20°				
		BX		97			
1/2" calcite vein 452' 1" Pyrite-calcite vein 454'							
482'6" 6" zone dolomite veinlets.			12°				
very calcareous 486'6'							
487'							
Total Depth. 487'							
Golden. Dyke Formation Throughout							
Electric & Radiometric Logs Run.							
Core scraped for Spectro Scan.							
Core split between 380'-404' and assayed for:							
						Cu, Pb, Zn, Ag, Cd, Au & P.	
						Max. values:	
						Cu. 0.015%	
						Pb 0.01%	
						Zn. 0.02%	
						Ag 0.1 ozs/long ton.	
						Cd. 0.001%	
						Au 0.01 ozs/long ton.	
						P. 0.13%.	
Tropar survey.							
170' - 57° 084°							
250' - 54° 084°							
487' - 49° 078°							

DRILL NO. <u>A1000</u>	EXPLANATION <u>1" = 20'</u>	HEAD OFFICE
TYPE <u>Mindrill</u>	CASING IN HOLE DURING DRILLING <u>H</u>	LOGGED BY <u>D.O.S.</u>
DRILLER <u>Ausdrill</u>	REFERENCES	DRAWN BY
COMMENCED <u>1.9.66</u>	<u>20° bedding Angle measured to core.</u>	CHECKED BY
COMPLETED <u>2.11.66</u>	<u>normal.</u>	SHEET <u>3</u> OF <u>5</u>
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT OF CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					

[illegible]

WELL NO. <i>A1000</i>	EXPLANATION <i>1" = 2"</i>	HEAD OFFICE	
TYPE <i>Mud drill</i>		CASING IN HOLE DURING DRILLING	LOGGED BY <i>D.O.S.</i>
DWELT <i>Ausdrill</i>	REFERENCES	DRAWN BY	
COMPLETED <i>1:13:66</i>		CHECKED BY	
CORRECTED <i>2:11:66</i>		SHEET <i>4</i> OF <i>5</i>	DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT **WOODCUTTERS AREA**

REMARKS

RUM JUNGLE DISTRICT N.T.HOLE No **DDH-66-5**CO-ORDINATES **1925.37E. Rum Jungle East Grid**R.L. GROUND **Length 487'**

LOCATION

ANGLE FROM HORIZONTAL **60°** DIRECTION **Grid E**

403'

404'

404'

8X

96

Trace chalcopyrite in 1/8" veinlet

404' 8"

1" coarse dolomite vein

Calcareous

CARBONACEOUS SLATE

(end of detail log)

DRILL NO **A1000**TYPE **Mindrill**

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 2'

HEAD OFFICE

LOGGED BY

D.O.S.

DRAWN BY

CHECKED BY

DRILLER **Ausdrill.**

REFERENCES

COMMENCED **1.9.66****20° bedding. Angle measured to core normal.**COMPLETED **2.11.66**SHEET **5** OF **5**

DRAWING NO

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *WOODCUTTERS AREA* REMARKS *RUM JUNGLE DISTRICT N.T.*
 HOLE No. *D.D.H. 66-6* CO-ORDINATES *216S. 35E. Rum Jungle East Grid* R.L. GROUND *Length 572'*
 LOCATION ANGLE FROM HORIZONTAL *60°* DIRECTION *E*

DESCRIPTION OF CORE

R.L.

DEPTH

LOG

LIFT
B
CORE
RE
COVERY
%

SAMPLES

REMARKS

ASSAYS

No core.

Completely

weathered rock

yellow-brown in

colour.

N
I
L

976'

completely weathered SHALE

NX

75

DRILL NO. *A1000*
 TYPE *Mindrill*

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 10'

HEAD OFFICE

LOGGED BY *D.O.S.*

DRAWN BY

CHECKED BY

DRILLER *Mines Branch*

REFERENCES

COMMENCED *16/9/66*COMPLETED *7/11/66*SHEET *1* OF *9*

DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *WOODCUTTERS AREA* REMARKS *RUM JUNGLE DISTRICT N.T.*
HOLE No. *DDH 66-6* CO-ORDINATES *216S. 35E. Rum Jungle East Grid* GROUND *Length 5721*
LOCATION _____ ANGLE FROM HORIZONTAL *60°* DIRECTION *E*

100'

150'

200'

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
Completely weathered SHALE Light brown to purplish. brown. Low specific gravity - very porous Prominent parting 30°-35° to core normal.		NX		75			
138'6" cavernous quartz. Core very broken - (Fault zone)		BX		60			
144'8" Broken purplish - brown. weathered slate & clay.		AX		60			
149'6" Dark grey calcareous CARBONACEOUS SLATE mostly broken. Pyritic from 160' calcite stringers 60° to core normal. Prominent parting 30° decreasing downwards to 20° to core normal. some joints		BX		89			
184' 1 1/2" calcite vein 60° to core normal							
189' calcite (dolomite?)- CARBONACEOUS SLATE BRECCIA minor pyrite. Dark red mineral (minium?) on joints				97			
199'6" core very broken.							

DRILL NO. *A1000*TYPE *Mindrill*

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 10'

HEAD OFFICE

LOGGED BY *D.O.S.*

DRAWN BY

CHECKED BY

SHEET *2* OF *9*

DRAWING NO.

*Wines Branch.**16/9/66.**7/11/66.*

REFERENCES

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *WOODCUTTERS AREA*REMARKS *RUM JUNGLE DISTRICT N.T.*HOLE No. *DDH 66-6*CO-ORDINATES *216S. 35E. Rum Jungle East Grid*

LOCATION

ANGLE FROM HORIZONTAL *60°* DIRECTION *E*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT OF CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
200'		AX					
CARBONACEOUS SLATE calcareous, Pyritic.							
shearing 70° to core normal - 214'							
small pyritic lenticles throughout							
250'		BX		97			
shearing 60° to core normal 250'							
260' Pyrite - calcite blebs elongated 40° to core normal							
269' } core shattered							
272' } calcite stringers 55°-60°							
to core normal (cleavage)							
Between 277'-285' abundant calcareous lenticles & replacements.							
292' 6" Core shattered							
300'							

DRILL NO. *A1000*PE *Mindrill*

GAP IN HOLE DURING DRILLING

EXPLANATION

1" = 10'

HEAD OFFICE

LOGGED BY *D.O.S.*

DRAWN BY

CHECKED BY

SHEET *3* OF *9*

DRAWING NO.

REFERENCES

BY *Mines Branch*DATED *16/9/66*DATED *7/11/66*

77

BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *WOODCUTTERS AREA*

REMARKS *RUM JUNGLE DISTRICT N.T.*

HOLE No. *DDH-66-6*

CO-ORDINATES

316S. 35E.

Rum Jungle East Grid

R.L. GROUND

Length 572'

LOCATION

ANGLE FROM HORIZONTAL

60°

DIRECTION

E

DESCRIPTION OF CORE

R.L.

DEPTH

CASING

SIZE OF CORE

LOG

LIFT
OF
CORE
RE
COVERY
%

SAMPLES

REMARKS

ASSAYS

300'

*CARBONACEOUS SLATE
calcareous, Pyritic.*

10°

350'

352' silice replacement

BX

97

*bedding 25° shearing 55°
core normal.
same sense.*

*bedding 25° shearing 60°
core normal.
In same sense.*

400'

Scale 1:1000
Windmill

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 10'

HEAD OFFICE

LOGGED BY

D.O.S.

DRAWN BY

CHECKED BY

SHEET

4 of 9

DRAWING NO.

PREPARED BY *Mines Branch*

DATE *5/2/66*

COMPLETED *7/4/66*

REFERENCES

*10° bedding - Measured as angle to core
Normal.*

GEOLOGICAL LOG OF DRILL HOLE

DESCRIPTION OF CORE

R.L.	DEPTH
CASING	SIZE OF CORE

LOG

LIFT
B
CORE
RE
COVER
B

SAMPLES

REMARKS

ASSAYS

30°

25°

BX:

97

80

DRILL NO. A1000
TYPE Mindrill

CASING IN HOLE DURING DRILLING

EXPLANATION

$$1'' = 10'$$

HEAD OFFICE

LOGGED BY D.O.S.

DRAWN BY

CHECKED BY

SHEET 5 OF 9

DRILLER.. *Mines Branch*

COMMENCED 16/9/66

COMPLETED .. 71.11.1.66.

REFERENCES

25° bedding - Measured as angle to core normal.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *WOODCUTTERS AREA* REMARKS *RUM JUNGLE DISTRICT N.T.*
 HOLE No. *DDH. 66-6* CO-ORDINATES *21G.S. 35E. Rum. Jungle East. Grid. R.L. GROUND Length 572'*
 LOCATION ANGLE FROM HORIZONTAL *60°* DIRECTION *E*

500'

CARBONACEOUS SLATE

calcareous, Pyritic.

505'4"

506'7"

Pyrite

97

519'

*Pyrite - sphalerite -
galena Lode.**(see detail log sheets
7-9).*

99

BX

538'8"

*6' Qtz vein.**Light-Midgrey DOLOMITE
with disseminated
Pyrite. Coarse dolomite
veining 545'6" - 549'6"*

100

550'

551'8"

CARBONACEOUS SLATE

calcareous, Pyritic.

100

572'

*Total Depth 572'**Golden Dyke Formation Throughout**Electric & Radiometric Logs Run.**core scraped for spectro scan.**core split between 497' - 554' and assayed for Cu, Pb, Zn, Ag, Au, P,
Cd, Ni**Tropari Survey:**150' - 60° 086°**572' - 31° 086°**max. values:**Cu - 0.19%**Ag. - 18.1 ozs/L/ton**Pb. - 24.2%**Au. - 0.01**Zn. - 25.1%**P. - 2.0%**Cd. - 0.2%**Ni - 0.1%*SHEET NO. *A.1000**Mindrill*

CASING IN HOLE DURING DRILLING

EXPLANATION

1" - 10'

HEAD OFFICE

LOGGED BY

D.O.S.

DRAWN BY

CHECKED BY

SHEET

OF 9

REFERENCES

*10° bedding - Measured as angle to
core normal.*

GEOLOGICAL LOG OF DRILL HOLE

WOODCUTTERS AREA

REMARKS. RUM JUNGLE DISTRICT. N.T.

D.D.H. 66-6

CO-ORDINATES 216S. 35E. Rum Jungle East Grid. R.L. GROUND Length 572'

TOP OF HOLE

ANGLE FROM HORIZONTAL 60° DIRECTION E

DEPTH	DESCRIPTION OF CORE	CASINO	SIZE OF CORE	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS	ASSAYS
518'								
519'	519'							
	Medium grained sphalerite, galena, pyrite; intergrown, chalcopyrite.							
520'	520' 2"							
	Pyrite with minor fine grained sphalerite							
	520' 7"							
	Dolomitic slate with pyrite and sphalerite							
521'							Core broken	
	Pyrite. Sphalerite variable, with minor galena.							
522'	522'						Core broken	
	Coarse Sphalerite, galena, pyrite							
	522' 3"							
	Mostly pyrite with subsidiary sphalerite							
523'								
	523' 6"							
	Black slate, minor pyrite and galena.							
524'								
	contact at 524' 9" - 50° to core normal							
	524' 9"							
525'								
	Sphalerite and galena (60/40?) apparently replacing pyrite							
526'								
	526' 1"							
527'								
	Pale fine grained pyrite (and arsenopyrite)? Minor sphalerite							

DRILL NO. A1000	EXPLANATION	HEAD OFFICE
TYPE Mindrill	CASINO IN HOLE DURING DRILLING	LOGGED BY D.O.S.
DRILLER Mines Branch	REFERENCES	DRAWN BY
COMMENCED 15/9/66	Detail Log of Lode.	CHECKED BY
COMPLETED 7/11/66		SHEET 7 OF 9
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT, **WOODCUTTERS AREA** REMARKS **RUM JUNGLE DISTRICT N.T.**
HOLE NO. **DDH-66-6** CO-ORDINATE **216S. 35E. Rum Jungle East Grid** RE-SPOUND **Length. 572'**
LOCATION ANGLE FROM HORIZONTAL **60°** DIRECTION **E**

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT N CORE RE COVER %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
527'							
527'7"							
? Sphalerite replacing pyrite							
528'							
527'11"							
Pyrite with subsidiary sphalerite.							
528'10"							
529'							
Very brecciated sphalerite and 529'2" Pyrite with shale blebs.							
Pyrite, sphalerite, slate breccia							
530'							
529'11"							
Pyrite, arsenopyrite, sphalerite							
531'							
531'1"							
Sphalerite, pyrite, galena, minor chalcopyrite							
531'8"							
Sphalerite, pyrite, 532'							
532'2" minor chalcopyrite							
Coarse galena							
532'6"							
533'							
Pyrite with minor							
534'							
sphalerite and							
arsenopyrite throughout							
535'							
535'6"							
Medium to coarse sphalerite							
536'							
536'1"							
536'9"							
Pyrite and sphalerite							
537'							

DRILL NO. **A1900**
TYPE **Mindrill**

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 10'

HEAD OFFICE

LOGGED BY

D.O.S.

DRAWN BY

CHECKED BY

SHEET

B. OF 9

DRAWING NO.

DRILLER **Mines Branch**

REFERENCES

COMMENCED **16/9/66**

Detail Log of Lode

COMPLETED **7/11/66**

GEOLOGICAL LOG OF DRILL HOLE

PROJECT **WOODCUTTERS AREA** REMARKS **RUM JUNGLE DISTRICT N.T.**
HOLE No. **DDH. 66-6** CO-ORDINATES **216S. 35E. Rum Jungle East Grid** LENGTH **572'**
LOCATION ANGLE FROM HORIZONTAL **60°** DIRECTION **E**

DESCRIPTION OF CORE

R.L.
CASINGDEPTH
SIZE OF
CORE

LOG

LIFT
9
CORE
RE
COVERY
%

SAMPLES

REMARKS

ASSAYS

537'

537'1/2" *Pyrite*
arsenopyrite
537'5" *Fine sphalerite,*
slate

538'

abundant sphalerite

538'2"

Pyrite, arsenopyrite,
minor sphalerite

538'8"

Chalcopyrite, quartz vein

Base of Lode - 538'8"

8X

DRILL NO **A1000**TYPE **Mindrill**DRILLER **Mines Branch.**COMMENCED **16/9/66**COMPLETED **7/11/66**

EXPLANATION.

CASING IN HOLE DURING DRILLING

REFERENCES

HEAD OFFICE

LOGGED BY

D.O.S.

DRAWN BY

CHECKED BY

SHEET

9 OF 9

DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *WOODCUTTERS AREA* REMARKS *RUM JUNGLE DISTRICT N.T.*
 HOLE No. *DDH. 66-7* CO-ORDINATES *224S. 33E. Rum Jungle East Grid* R.L. GROUND *Length 652'*
 LOCATION ANGLE FROM HORIZONTAL *60°* DIRECTION *E*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT B CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
0' 10 core completely weathered rock yellowish-brown in colour becoming darker with depth. 50' 100'							

DRILL <i>Mines Branch</i> COMMENCED <i>16-9-66</i> COMPLETED <i>11-11-66</i>	EXPLANATION <i>CASING IN HOLE DURING DRILLING</i>	REFERENCES	HEAD OFFICE	
			LOGGED BY <i>D.O.S.</i>	
			DRAWN BY	
			CHECKED BY	
			SHEET <i>1</i> OF <i>7</i>	
			DRAWING NO.	

GEOLOGICAL LOG OF DRILL HOLE

PROJECT. WOODCUTTERS AREA REMARKS. RUM JUNGLE DISTRICT N.T.
 HOLE No. DDH. 66-7 CO-ORDINATES 224 S. 33 E. Rum Jungle East Grid R.L. GROUND Length 6
 LOCATION _____ ANGLE FROM HORIZONTAL 60° DIRECTION E

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT OF CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
100' completely weathered slate - brown clay.			35°				
121'				87			
calcareous grey SLATE.							
126' partly weathered			35°	88			
Partly to completely weathered slate.				88			
135'			35°				
calcareous GREY SLATE Partly weathered.				80			
147'							
150' completely weathered slate.			NX 40°	73			
157'							
Porous & broken. CARBONACEOUS SLATE 166' bedding 35° prominent Parting 35° to core normal.				60			

A1000 Casing in hole during drilling	EXPLANATION	1" = 10'	HEAD OFFICE	
	REFERENCES	bedding measured as angle to core normal.	LOGGED BY	D.O.S.
			DRAWN BY	
			CHECKED BY	
			DATE	

GEOLOGICAL LOG OF DRILL HOLE

PROJECT WOODCUTTERS AREA REMARKS RUM JUNGLE DISTRICT N.T.
 HOLE No. DDH 66-7 CO-ORDINATES 224E. 33E. Rum Jungle East Grid GROUND Length 652'
 LOCATION _____ ANGLE FROM HORIZONTAL 60° DIRECTION E.

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT B CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
200' Porous & broken CARBONACEOUS SLATE.				60			
210' completely weathered purplish-brown clay.				40			
225'-227' porous carbonaceous slate.							
Quartz vein 6"							
235' Porous CARBONACEOUS SLATE				60			
245' CARBONACEOUS SLATE & 'careous. 1/2" Quartz vein.			BX				
250' 2 253' Porous carbonaceous slate with pyritic specks.				95			
292' - 1" Quartz vein.							

NO. <u>A1000</u>	EXPLANATION <u>1" - 10'</u>	HEAD OFFICE
TYPE <u>Mindrill</u>	CASING IN HOLE DURING DRILLING <u>H</u>	LOGGED BY <u>P.O.S.</u>
DRILLER <u>Mines Branch</u>	REFERENCES	DRAWN BY
COMMENCED <u>16-9-66</u>		CHECKED BY
COMPLETED <u>11-11-66</u>		SHEET <u>3</u> OF <u>7</u>
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *WOODCUTTERS AREA*REMARKS *RUM JUNGLE DISTRICT N.T.*HOLE No. *DDH. 66-7*CO-ORDINATES *224 S. 33 E. Rum Jungle East Grid*GROUND *Length 652'*

LOCATION

ANGLE FROM HORIZONTAL *60°* DIRECTION *E*

300'

*CARBONACEOUS SLATE
calcareous, Pyritic.*

30°

33°

95

350'

*347' shearing 80° to
core normal.*

BX

35°

27°

*384' - 385' core broken.**395' calcite - Pyrite
lenticles appear.*

400'

HOLE NO. *A1000**Mindrill*

CASINO IN HOLE DURING DRILLING

EXPLANATION

1" - 10'

HEAD OFFICE

LOGGED BY *D.O.S.*

DRAWN BY

CHECKED BY

SHEET *4 of 7*

DRAWING NO.

REFERENCES

*30° bedding - measured as angle to core
normal.**2000 ft**9-66**11-66*

GEOLOGICAL LOG OF DRILL HOLE

PROJECT. WOODCUTTERS AREA. REMARKS. RUM JUNGLE DISTRICT. N.T.
 HOLE No. D.D.H. 66-7 CO-ORDINATES 224S. 33E. Rum Jungle East Grid. R.L. GROUND Length. 652'
 LOCATION ANGLE FROM HORIZONTAL 60° DIRECTION E

400'

CARBONACEOUS SLATE
calcareous, Pyritic.

410' shearing sub-parallel
to core axis.

30°

430' 3 1/2' Pyrite - calcite
vein.

95

439' - shearing sub-parallel
to core axis.

BX

35°

450'

473' Quartz vein with
calcite intergrowths.

474' GREY SLATE
calcareous

98

480' Grey, Partly silicified
DOLOMITE.

100

486' DOLOMITE.

10°

Light grey, Partly
silicified, Pyritic in part
with light grey
dolomitic slate bands.

100

500'

41000
Windmill

CASING IN HOLE DURING DRILLING

EXPLANATION

1" 10'

HEAD OFFICE

Mines Branch

REFERENCES

30° bedding. measured as angle to core
normal.

LOGGED BY D.O.S.

DRAWN BY

CHECKED BY

SHEET 5 OF 7

DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT. WOODCUTTERS AREA REMARKS. RUM JUNGLE DISTRICT. N.T.
 HOLE No. DDH. 66-7 CO-ORDINATES 2248.33E. Rum Jungle East Grid R.L. GROUND Length 652'
 LOCATION ANGLE FROM HORIZONTAL 60° DIRECTION E

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
500'							
<i>Silicified DOLOMITE with dolomitic - slate bands</i>							
				100			
			45°				
<i>Trace sphalerite 517'</i>							
518'							
520' 6' Dolomite band.							
522' 3' Qtz. - Pyrite band							
524' 6' Zone of dolomite.							
			34°				
<i>Light grey calcareous SLATE with dolomite bands.</i>			20°				
543' shearing sub-parallel to core axis.				99			
550'			BX				
553' bedding 10° either side of core normal.			20°				
563'-565' Qtz. - pyrite-arsenopyrite veins.							
564' 6' 3' Quartzite band.			8°				
			3°				
580' 8' Qtz. vein.							
581'							
Zone of irregular Qtz - calcite veining with pyrite, arsenopyrite, minor chalcopryite & sphalerite.				100			
590'							
CARBONACEOUS SLATE calcareous, Pyritic.				100			
600'							

DRILL NO. <u>1000</u>	EXPLANATION <u>1° 10'</u>	HEAD OFFICE
TYPE <u>Hand drill</u>	CASING IN HOLE DURING DRILLING <u>X</u>	LOGGED BY <u>D.O.S.</u>
DRILLER <u>James Branch</u>	REFERENCES <u>30° bedding - measured as angle to core normal.</u>	DRAWN BY
COMMENCED <u>16.9.66</u>		CHECKED BY
COMPLETED <u>11.11.66</u>		SHEET <u>6</u> OF <u>7</u>
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT, WOODCUTTERS AREA REMARKS, RUM JUNGLE DISTRICT, N.T.
 HOLE No. DOH. 66-7 CO-ORDINATES 224S. 33E. Rum Jungle East Grid R.L. GROUND Length 652'
 LOCATION ANGLE FROM HORIZONTAL 60° DIRECTION E

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
<i>CARBONACEOUS SLATE calcareous & pyritic.</i>			<i>5°-10°</i>				
<i>629' calcite - Pyrite lenticles.</i>				<i>100</i>			
<i>639' 110" silicified Dolomite Breccia.</i>		<i>BX</i>	<i>35°</i>				
			<i>35°</i>				
			<i>38°</i>				
<i>650' 2" cavity.</i>			<i>30°</i>				
<i>650' core broken 650'-652'</i>			<i>40°</i>				
<i>652' Total Depth</i>							
<i>Golden. Dyke Formation. throughout Electric & Radiometric Logs Run. Core scraped for Spectro Scan. Core split between 474'-598' assayed for Cu, Pb, Zn, Ag, Cd, Au & P. max. values: Cu. 0.024 % Pb. 0.05 % Zn. 0.35 % Ag. 0.2 ozs/ long ton Au. 0.04 ozs/ long ton. Cd. 0.001 % P. 0.15 %</i>							
<i>Tropari Survey. 215' 57° (No compass reading). 400' 47° 087° Acid Tube Survey. 652' 32° 30'</i>							

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 10'

REFERENCES

30° bedding measured as angle to core normal.

HEAD OFFICE

LOGGED BY D.O.S.

DRAWN BY

CHECKED BY

SHEET 7 OF 7

DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT OF CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASINO	SIZE OF CORE					

200' = 199'		48°	
DRILL NO. TYPE		EXPLANATION CASING IN HOLE DURING DRILLING	HEAD OFFICE LOGGED BY <i>J.A.I. & J.L.W.</i> DRAWN BY CHECKED BY
DRILLER <i>Mines Branch</i> COMMENCED <i>17-11-66</i> COMPLETED <i>22-3-67</i>		REFERENCES <i>40° bedding. } Bedding & cleavage shown as (70°) cleavage } angle to core normal. In same sense unless otherwise stated.</i>	SHEET <i>1</i> OF <i>6</i> DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

400		HEAD OFFICE	
DRILL NO.	EXPLANATION	LOGGED BY <i>J.M. & J.L.W.</i>	
TYPE	CASING IN HOLE DURING DRILLING  <i>1" = 20'</i>	DRAWN BY	
DRILLER <i>Mines Branch</i>	REFERENCES	CHECKED BY	
COMMENCED <i>17-11-66</i>	<i>40° Bedding. } Bedding & cleavage shown as (70°) cleavage } angle to core normal. In some sense unless otherwise stated.</i>	SHEET <i>2</i> OF <i>6</i>	
COMPLETED <i>22-3-67</i>		DRAWING NO.	

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *WOODCUTTERS AREA* REMARKS *RUM JUNGLE DISTRICT N.T.*
 HOLE NO. *DDH 66-11* CO-ORDINATES *2205 33E Rum jungle East Grid* LENGTH *1015 ft*
 LOCATION _____ ANGLE FROM HORIZONTAL *75°* DIRECTION *E*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
<i>CARBONACEOUS SLATE</i> <i>Pyritic, calcareous</i>			<i>35°</i>				
			<i>40°</i>				
			<i>46°</i>				
			<i>27°</i> <i>(70°)</i>				
			<i>30°</i> <i>(75°)</i>				
			<i>32°</i>				
			<i>35°</i>				
			<i>25°</i> <i>(75°)</i>				
			<i>35°</i> <i>(80°)</i>	<i>98</i>			
			<i>45°</i> <i>(80°)</i>				
<i>Calcite veins</i>			<i>45°</i> <i>(80°)</i>				
			<i>48°</i> <i>(80°)</i>				
<i>2 ft brecciated zone</i> <i>abundant calcite.</i>							

EXPLANATION		HEAD OFFICE	
CASING IN HOLE DURING DRILLING	1" = 20'	LOGGED BY	JAI. B. J. L. W.
Main Branch 17-11-65 22-5-67	REFERENCES 45° bedding. (80°) cleavage.	DRAWN BY	
		CHECKED BY	
		SHEET 3 OF 6	
		DRAWING NO.	

GEOLOGICAL LOG OF DRILL HOLE

PROJECT WOODCUTTERS AREA HOLE No. DDH 66-11 CO-ORDINATES 220S 33E Rum Jungle East Grid REMARKS RUM JUNGLE DISTRICT NT

LOCATION ANGLE FROM HORIZONTAL 75° DIRECTION E

600

1 - San Francisco
7-14-66
22-5-67

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *WOODCUTTERS AREA* REMARKS *RUM JUNGLE DISTRICT N.T.*
 HOLE No. *DDH 66-11* CO-ORDINATES *220S 33E Rum Jungle East Grid* LENGTH *1015 ft.*
 LOCATION ANGLE FROM HORIZONTAL *75°* DIRECTION *E*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
800 CARBONACEOUS SLATE. Pyritic black calcareous. 2" py.-qtz. vein (broken) 826' 1" Qtz-calcite vein. 22° (57°) 99 26° (54°) 876' 1" py vein. BX 879' more calcareous, minor calcilutite slumped 900 928'-929' silicified slightly calcareous argillaceous rock disseminated py. 936' 1/2" py calcite vein 35° (50°) 22° (59°) 55° (54°) 954' 1/4" vein py-qtz & calcite. 961' 1/2" py calcite vein 23° (55°) 975' 1/2" py.-calcite vein 5° (45°) 958' 1" vein py and calcite 20° (57°) 1000 vein calcite & pyrite 2" in at centre of qtz. py & minor cholerite and galena.							

NO.	EXPLANATION	HEAD OFFICE
TYPE CASING IN HOLE DURING DRILLING	<i>1" = 20'</i>	LOGGED BY <i>JRI & JLV</i>
DRILLER <i>Mines Branch</i>	REFERENCES	DRAWN BY
COMMENCED <i>17-11-66</i>	<i>5° Bedding</i>	CHECKED BY
COMPLETED <i>22-3-67</i>	<i>[45°] cleavage.</i>	SHEET <i>5</i> OF <i>6</i>
	<i>Bedding & cleavage shown as angle to core, normal in same sense, unless otherwise stated.</i>	DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT WOODCUTTERS AREA REMARKS RUM JUNGLE DISTRICT N.T.
 HOLE No. DDH 66-11 CO-ORDINATES 220S 33E Rum Jungle East Grid Length 1015 ft
 LOCATION ANGLE FROM HORIZONTAL 75° DIRECTION E

DESCRIPTION OF CORE

R.L.
CASINGDEPTH
SIZE OF
CORE

LOG

LIFT
&
CORE
RE
COVERY
%

SAMPLES

REMARKS

ASSAYS

1000
 CARBONACEOUS SLATE
 Pyritic more calcareous.
 1002' - 2" vein qtz., sphalerite,
 minor py and galena.

BX

99

1015' Total Depth.

Golden Dyke Formation throughout.

Electric and Gamma logs run.

All core scraped for spectro. scan. max. values

Acid Tube Survey:

180' - 76 1/2°

285' - 72°

550' - 70°

700' - 60°

950' - 40°

Cu. - 150 ppm.

Pb. - 250 ppm.

Zn. - 200 ppm.

Ag. - 6 ppm.

Cd. - 3 ppm.

DRILL NO.
 TYPE

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 20'

HEAD OFFICE

LOGGED BY JRIB JLN

DRAWN BY

CHECKED BY

SHEET 6 OF 6

DRAWING NO.

DRILLER Price Branch
 COMMENCED 17-11-66
 COMPLETED 22-3-67

REFERENCES

GEOLOGICAL LOG OF DRILL HOLE

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					

0

No Core

Very weathered Rock

mostly red-brown & yellow-brown

100

100'

Weathered SLATE

Red-brown changing to grey with increasing depth.

160

160'

CARBONACEOUS SLATE.

weathered.

mostly grey to black

short porous lengths

No Py

N
I
L
BX
B0
B6

DRILL NO.	EXPLANATION	HEAD OFFICE
TYPE	CASING IN HOLE DURING DRILLING  1"=20'	LOGGED BY <u>C.E.R. & J.L.W.</u>
DRILLER <u>Mines Branch.</u>	REFERENCES	DRAWN BY
COMMENCED <u>15-11-66</u>	25° Bedding } Bedding cleavage shown as	CHECKED BY
COMPLETED <u>21-3-67</u>	(50%) cleavage } angle to core normal in same	SHEET <u>1</u> OF <u>5</u>
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT. WOODCUTTERS AREA

MOLE No. D.D.H. 66-12

CO-ORDINATES

2125.36E.

REMARKS *RUM JUNGLE DISTRICT N.T.*

um Jungla East Grid. L. GROUND Length 775 ft.

LOCATION

ANGLE FROM HORIZONTAL .. 65°

DIRECTION *E*...

DESCRIPTION OF CORE

R.L.

DEPTH

LOG

LIFT
&

SAMPLES

REMARKS

ASSAYS

CARBONACEOUS SLATE

becoming less weathered.

-263-

CARBONACEOUS SLATE
calcareous pyritic.

- 280' irregular qtz. veins

290' } regular thin
293' } calcite veins.

329' 1" calcite-pyrite bleb.

352' - 6' calcite veins

364' - 1/4" Py veins

$$552^{\circ} - 1^{\circ} = 551^{\circ}, \text{ wenn}$$

EXPLANATION

 $1'' = 20'$

HEAD OFFICE

LOGGED BY

CEP & JLW

15444 BY

REFERENCES

35° Bedding

60° clearing:

100

REFERENCES
Beveridge, 1944

Chrysomelidae

1992-1993

GEOLOGICAL LOG OF DRILL HOLE

PROJECT: *WOODCUTTERS AREA* REMARKS: *RUM JUNGLE DISTRICT N.T.*
 HOLE No. *DDH 66-12* CO-ORDINATES *212S 36E Rum Jungle East Grid* *Length 775 ft.*
 LOCATION: ANGLE FROM HORIZONTAL *65°* DIRECTION *E*

DESCRIPTION OF CORE	R.L. CASING	DEPTH SIZE OF CORE	LOG	LIFT S CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
400' CARBONACEOUS SLATE. calcareous, pyritic.			24° (80°)				
418' 6" siliceous vein 420' 1/2" qtz. pyrite vein.			50° (80°) opposite				
442' } 6" chlorite-rich shear. } 3" qtz. pyrite vein } 3" thin qtz. veins.			23° (85°)				
450' 6" irregular qtz. vein.							
				92			
474' 1/2" qtz. pyrite vein							
			AX				
			32° (82°)				
500'							
510' 1/2" qtz. py. vein.			23° (64°)				
51' 1" qtz. vein.							
chalcopyrite qtz. vein.			32° (52°)				
51' GILLACEOUS ESTONE & DOLOMITE. Light grey, pyritic.				98			
3" qtz. vein.							
3" qtz. minor pyrite.				94			
				93			
CARBONACEOUS SLATE calcareous, pyritic.							
600'							

DRILLER: <i>James Branch</i>	EXPLANATION: <i>1"=20'</i>	HEAD OFFICE: <i>CEP & JLV.</i>
COMPLETED: <i>21-3-67</i>	REFERENCES: <i>30° Bedding. } Bedding & cleavage shown as (82°) cleavage } angle to core normal opp. } opposite sense.</i>	LOGGED BY: <i>CEP & JLV.</i>
		DRAWN BY: <i>CEP & JLV.</i>
		CHECKED BY: <i>CEP & JLV.</i>
		SHEET: <i>5</i>
		DRAWING NO: <i>5</i>

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *WOODCUTTERS AREA* REMARKS *RUM JUNGLE DISTRICT N.T.*
 HOLE No. *DDH 66-12* CO-ORDINATES *212S 36E Rum Jungle East Grid* PLATON *Length 7.75 ft.*
 LOCATION ANGLE FROM HORIZONTAL *65°* DIRECTION *E*

DESCRIPTION OF CORE	R.L. CASING	DEPTH SIZE OF CORE	LOG	LIFT & CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
<i>CARBONACEOUS SLATE. calcareous, pyritic, partly silicified. abundant irregular qtz. veins.</i> <i>618'-619' breccia - qtz, gal. ($< 5\%$) minor arsenopyrite.</i> <i>630' qtz-pyrite-gal vein. 6" pyrite ($> 50\%$) qtz, minor sphalerite, galena, arsenopyrite 641'-643' partly silicified - abundant siliceous blebs</i> <i>652'-654' - 6" partly silicified irregular qtz. veins.</i>							
<i>665'</i> <i>PYRITE LODGE 30' see detailed log sheet (5).</i>			26° (70°).				
<i>695'</i> <i>CARBONACEOUS SLATE calcareous, pyritic, broken & sheared at top. 6" band silicified, non- calcareous.</i> <i>Pyrite increasing, up to 15%. Some siliceous b. bs.</i> <i>1 ft of slumped zone with qtz. bands.</i> <i>1/2" qtz. with minor gal. irregular qtz. veins some with galena. Qtz. veins $< 1/4"$ silicified, non-calcareous.</i>			20° (25°). opp.				
<i>775'</i> <i>Total Depth</i> <i>Golden Dyke formation Throughout Electric & Radiometric Logs Run. All core scraped for spectro scan Core split and assayed. between 570'-610' 662'-698'</i>			35° (40°). opp.				
<i>Tropari Survey</i> <i>400' - 61° 092°</i> <i>515' - 56° 095°</i> <i>700' - 47° Acid tube</i>							

DRILL NO.	EXPLANATION	HEAD OFFICE
TYPE	CASING IN HOLE DURING DRILLING <i>1"=20'</i>	LOGGED BY <i>CEP & JLW</i>
DRILLER <i>Mines Branch</i>	REFERENCES	DRAWN BY
COMMENCED <i>15-11-66</i>	<i>35° Bedding. } bedding & cleavage shown (40°) cleavage. } as angle to core normal. opp. } opposite sense.</i>	CHECKED BY
COMPLETED <i>21-3-67</i>		SHEET <i>5</i>
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT WOODCUTTERS AREA REMARKS RUM JUNGLE DISTRICT N.T.
 HOLE No. DDH 66-12 CO-ORDINATES 212S 36E Rum Jungle East Grid Length 775 ft.
 LOCATION ANGLE FROM HORIZONTAL 65° DIRECTION E

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
660' CARBONACEOUS SLATE calcareous, minor Pyrite coming in at 665'							
665'							
Py and gal. with slate gangue. minor chalcopryrite. Py coarse grained.							
671'6"							
Py and gal. variable. calcareous gangue, minor chalcopryrite fine grained.							
679' Predominantly pyrite, some galena with minor galena. fine grained.			AX	97			
686'6"							
Black calcareous slate showing as gangue with calcite veins (up to 4').							
690' 1' very weathered py. calcareous gangue grading into disseminated in slate at 695'							
695'							
Black calcareous slate sheared and broken disseminated py gradually fading out towards 699'6"							
699'6"							
701' CARBONACEOUS SLATE calcareous.							

DRILL NO.	EXPLANATION	HEAD OFFICE
TYPE	CASING IN HOLE DURING DRILLING <u>H</u> <u>1" = 5'</u>	LOGGED BY <u>CEP & J.L.W.</u>
DRILLER <u>Mines Branch</u>	REFERENCES	DRAWN BY
COMMENCED <u>15-11-66</u>	<u>py - pyrite</u>	CHECKED BY
COMPLETED <u>21-3-67</u>	<u>gal - galena.</u>	SHEET <u>5</u> OF <u>5</u>
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT *WOODCUTTERS AREA* REMARKS *RUM JUNGLE DISTRICT N.T.*
 HOLE NO. *P. D. H. 67/3* CO-ORDINATES *216 S. 35 E. Rum Jungle East Grid* R.L. GROUND *Length 916'*
 LOCATION ANGLE FROM HORIZONTAL *75°* DIRECTION *E.*

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
<i>Completely weathered rock yellowish grey to pink.</i>							
<i>Rock becoming darker in colour</i>							
<i>162' CARBONACEOUS SLATE, weathered.</i> <i>165'9" - 167'9" 2' cavity.</i> <i>short porous lengths.</i> <i>Fresh pyrite appears.</i> <i>190'</i>							

N
I
L

8X

35° (70°) 95
 same NIL
 38° (75°) same
 38° (75°) same

95

DRILL NO.	EXPLANATION <i>1" = 20'</i>	HEAD OFFICE
TYPE	CASING IN HOLE DURING DRILLING <i>H</i>	LOGGED BY <i>J. L. W.</i>
DRILLER <i>Mines Branch</i>	REFERENCES <i>30° bedding } angle to core & (80° cleavage } opp. in opposite sense same in same sense</i>	DRAWN BY
COMMENCED <i>8/4/67</i>		CHECKED BY
COMPLETED <i>17/7/67</i>		SHEET <i>1</i> OF <i>5</i>
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT WOODCUTTER AREA REMARKS RUM JUNGLE DISTRICT, N.T.
 HO. E. No. D.D.H. 67-3 CO-ORDINATES 216.S. 35.E. Rum Jungle East Grid R.L. GROUND Length 916'
 ANGLE FROM HORIZONTAL 75° DIRECTION E.

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
CARBONACEOUS SLATE weathered. 218' - 6' band pyrite, both fresh & weathered to haematite. 250' - 6' length calcite veining. ? Fault Cerrussite. 264' - 6' Qtz.-calcite veining. One vein 1" wide. Qtz. replaces calcite			40° (82°) same				
			46° (75°) same				
			52° (70°) same				
			49° (76°) same				
			45° (72°) same	95			
			50° (77°) same				
			47° (52°) same				
			40° (82°) same				
			BX				
			36° (70°) same				
304' slump zone. numerous calcite-Qtz. veins.					90		
311' CARBONACEOUS SLATE. calcareous & pyritic.			34° (78°) same				
324' Extremely slumped zone, rock, calcified.			25° (75°) same		88		
333' CARBONACEOUS SLATE. calcareous & pyritic.							
				92			

DRILL NO.	EXPLANATION	HEAD OFFICE
TYPE	CASING IN HOLE DURING DRILLING <u>1" x 20'</u>	LOGGED BY <u>V.L.W.</u>
DRILLER <u>Mines Branch</u>	REFERENCES	DRAWN BY
COMMENCED <u>8/4/67</u>	<u>30° bedding } angle to core ⊥</u> <u>(80°) cleavage }</u> <u>off in opposite sense</u>	CHECKED BY
COMPLETED <u>17/7/67</u>	<u>same in same sense</u>	SHEET <u>22</u> OF <u>22</u>
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT WOODCUTTERS AREA REMARKS RUM JUNGLE DISTRICT N.T.
HOLE No. D.D.H. 67-3 CO-ORDINATES 216.5. 35E. Rum Jungle East Grid R.L. GROUND Length 916'
LOCATION ANGLE FROM HORIZONTAL 75° DIRECTION E

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT OF CORE RE- COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
400							
CARBONACEOUS SLATE. calcareous & Pyritic.				92			
424'-2' Quartz vein.							
425'							
CARBONACEOUS SLATE. calcareous. Pyrite > 15 %							
Trace of galena 425'-469' No bedding or cleavage recognisable.				97			
sphalerite and galena spread over length							
465.9' { sphalerite 30% { galena 15% { pyrite 15% 469' { slate 40%							
CARBONACEOUS SLATE, calcareous & pyritic.							
		BX					
500							
516' - 2' pyrite-quartz- calcite bleb Pyrite 40%, trace galena.			(70')				
				99			
From 547' numerous small Quartz.-Calcite veins up to 2" in width. Majority 1/4"			25° (63°) same				
			25° (60°) same				
570' - 8' shear zone Quartz.-calcite as fracture filling in sheared slate. Graphite on shear surfaces Arsenopyrite galena.			(55°)				
585' - 6' slump zone filled with Qtz. & calcite							
600							

DRILL NO.	EXPLANATION	HEAD OFFICE	
.....	.....	LOGGED BY	.....
.....	.....	DRAWN BY	.....
.....	.....	CHECKED BY	.....
.....	.....	SHEET	 OF 5
.....	.....	DRAWING NO.	.....

GEOLOGICAL LOG OF DRILL HOLE

PROJECT **WOODCUTTERS AREA** REMARKS **RUM JUNGLE DISTRICT, N.T.**
 HOLE No. **D.D.H. 67-3** CO-ORDINATES **216S. 35E. Rum Jungle East Grid** L. GROUND **Length 916'**
 LOCATION ANGLE FROM HORIZONTAL **75°** DIRECTION **E.**

DESCRIPTION OF CORE	R.L. CASINO	DEPTH SIZE OF CORE	LOG	LIFT A FOOT OF CORE %	SAMPLED	REMARKS	ASSAYS
600 CARBONACEOUS SLATE calcareous & pyritic.				99 (53°)			
625' CARBONACEOUS CALCILUTITE, pyritic. No bedding recognisable cleavage = 80° to core normal.		BX		97			
658' Slump zone Qtz.- Calcite fracture. fillings (25% of rock). Pyrite. > 2%.				98			
677' CARBONACEOUS CALCILUTITE. Pyritic.							
700 705'6" } Pyritic length. 709' } Pyrite > 50%							
Increased pyrite content 696'-766' (3%-4%) occurs as isolated blebs up to 1" and as blebs associated with. Quartz. - calcite. veins.		AX		72			
800							

DRILL NO.	EXPLANATION	HEAD OFFICE
TYPE	CASING IN HOLE DURING DRILLING 1" = 20	LOGGED BY R.L.W.
DRILLER Mines Branch	REFERENCES	DRAWN BY
COMMENCED 8/4/67	30° bedding (80° cleavage) angle to core L opp in opposite sense same in same sense	CHECKED BY
COMPLETED 17/7/67		SHEET 4
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

GEOLOGICAL LOG OF DRILL HOLE

PROJECT WOODCUTTERS AREA REMARKS RUM JUNGLE DISTRICT, I.T.
 NO. P.D.H. GT-5 CO-ORDINATES 200-S 36-E Rum Jungle East Grid R.L. GROUND Length 713'
 LOCATION ANGLE FROM HORIZONTAL 65° DIRECTION E.

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT O CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
No core. Completely weathered rock yellow to reddish brown in colour.							
100' — completely weathered rock reddish brown in colour.					83		
117' — CARBONACEOUS SLATE, weathered. Fe ox from Py. Slightly calcareous							
					95		
Rock becoming darker in colour.							
190' — 195 very weathered length. Highly porous.							

DRILL NO.
 TYPE
 DRILLER Minas Branch
 COMMENCED 10/2/67.....
 COMPLETED 27/6/67....

CASING IN HOLE DURING DRILLING

PROFANATION 4-30'

REFERENCES

REVISION

LOANED BY W.L.M.

DRAWN BY

CHECKED BY

SHEET 1 OF 3

DRAWING NO.

BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

GEOLOGICAL LOG OF DRILL HOLE

PROJECT **WOODCLITTERS AREA** REMARKS **RUM JUNGLE DISTRICT** N.T.
 HOLE No. **D.P.H. 67-4** CO-ORDINATES **200.5 36E Rum Jungle East Grid** R.L. GROUND Length
 LOCATION ANGLE FROM HORIZONTAL **65°** E.

DESCRIPTION OF CORE

R.L. DEPTH
CASING SIZE OF
CORE

LOG

LIFT
B
CORE
RE
COVERY
%

SAMPLES

REMARKS

ASSAYS

CARBONACEOUS SLATE
 weathered, slightly
 calcareous.

Fresh. Pyrite appears.
 222'

237.9' 1" Qtz. vein

254' - 4' Py - Calcite bleb
 Py > 70%

295' 1" slumped section.
 296' fractures filled with
 calcite.

310'

CARBONACEOUS SLATE.
 calcareous, pyritic

348.6' 1" pyrite bleb.
 with minor calcite.

CARBONACEOUS SLATE
 weathered.

BX

25°
 (65°)
 opp.

96

25°
 (60°)
 opp.

98

DRILL NO.

TYPE

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 20'

HEAD OFFICE

LOGGED BY

DRAWN BY

CHECKED BY

DATE

TIME

DRILLER *Mines Branch*COMPLETED *10/1/67*COMPLETED *21/1/67*

50° bedding

(60° cleavage)

opp in opposite sense

same in same sense

REFERENCE

none to date

GEOLOGICAL LOG OF DRILL HOLE

PROJECT **WOODCUTTERS AREA**

HOLE No *D. D. H. 67-4.* CO-ORDINATES *200.S-36E RUM Jungle East Grid* R1 GROUND *Length 716'*

LOCATION ANGLE FROM HORIZONTAL 65° DIRECTION E

400

CARBONACEOUS SLATE
weathered, non-
calcareous, porous.

428'

CARBONACEOUS SLATE.
Calcareous, pyritic.

numerous calcite-quartz veins from 4601 = 110'

495'
500' Slumped zone.

500' Slumped zone.

500

600

DRILL TYPE

CASING IN HOLE DURING DRILLING

EXPLANATION

1^h - 20'

HEAD OFFICE

LOGGED BY U.L.W.

DRAWN BY

CHECKED BY

Misses Branch

COMMENCED 10/4/67

COMPLETED 27/6/67

30° bedding } angle to core ⊥
80° cleavage }
off in opposite sense
same in same sense.

REFERENCES

SHEET 11

DRAWING N

GEOLOGICAL LOG OF DRILL HOLE

PROJECT **WOODCUTTERS AREA** REMARKS **RUM JUNGLE DISTRICT. N.T.**
 HOLE No. **D.P.H. 67-4** CO-ORDINATES **200.5 36E. Rum Jungle East Grid** R.L. GROUND **Length 716'**
 LOCATION ANGLE FROM HORIZONTAL **65°** DIRECTION **E**

600

CARBONACEOUS SLATE.

610'

Quartz 610'-611'10" } see
 621'2"-625'2" } sheet
 Lode 611'10"-621'2" } 5.

625'2"

CARBONACEOUS SLATE

Calcareous, pyritic.

Slumped zone, calcified.

Core very broken.

625' - 642'

20°
 (70°)
 same

BX 10°
 (60°)
 same

96

22°
 (45°)
 opp.

700

704' 1" Pyrite bleb.

20°
 (40°)
 opp.

716'

Total Depth.

Gol Dyke Formation throughout

Etc. & Radiometric Logs run.

Core scraped for spectro-scan.

Core split 606'10"-628'2" and
 analyzed for Cu, Pb, Zn, Ag, Cd, Fe & S.

Max values. Cu. 0.04%

Pb. 0.01%

Zn. 0.02%

Ag. 0.26 ozs/long ton.

Cd. 0.0005%

Fe. 9.40%

S. 5.85%

Acid Tube Survey:

200' 63°

400' 58°

600' 50°

700' 44°

800

CASING IN HOLE DURING DRILLING

EXPLANATION

1" 20

HEAD OFFICE

LOGGED BY **U.L.W.**

DRAWN BY

CHECKED BY

SHEET **4** OF **5**

DRAWING NO.

DRILLER **Minas Branch**COMMENCED **10/4/67**COMPLETED **23/4/67**

REFERENCES

30° bedding
 (80° cleavage) } angle to core L
 opp in opposite sense
 same in same sense

GEOLOGICAL LOG OF DRILL HOLE

PROJECT **WOODCUTTERS AREA** REMARKS **RUM JUNGLE DISTRICT. N.T.**
 HOLE No. **D.D.H. 67-4** CO-ORDINATES **200.5 36E. Rum Jungle East Grid** L. GROUND **Length 716'**
 LOCATION **ANGLE FROM HORIZONTAL 65°** DIRECTION **E.**

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT 9 CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
600 CARBONACEOUS SLATE calcareous & pyritic							
610'							
QUARTZ.							
611/10"							
"Micaceous Lode" Biotite schist Biotite 20% Pyr & 15%							
620 621 1/2" Quartz 622 1/6" Quartz with slate, Pyrite (5%), calcite. 625 1/2" Pyritic CARBONACEOUS SLATE. calcified. Slumped zone (to 642') numerous small quartz veins (To 1/4"). Fractures filled with calcite. Core very broken.							

EXPLANATION

1" = 4'

HEAD OFFICE

LOGGED BY **J.L.W.**
 DRAWN BY
 CHECKED BY
 DATE 1967 10 11

REFERENCES

GEOLOGICAL LOG OF DRILL HOLE

PROJECT, VIOLETCUTTERS AREA REMARKS, RUM JUNGLE DISTRICT N.T.
 DATE, 7/7/67 CO-ORDINATES 204S 35E Rum Jungle East Grid GROUND LENGTH 790'
 SECTION ANGLE FROM HORIZONTAL 65° DIRECTION E

DESCRIPTION OF CORE

R.L.
CASINGDEPTH
SIZE OF
CORE

LOG

LIFT
B
CORE
RE
COVERY
%

SAMPLES

REMARKS

ASSAYS

No core.

Completely

weathered rock

38'

Pinkish coloured

extremely porous

weathered Rock

25

NX

110'

Yellowish - Brown
 weathered Rock
 becoming darker
 towards 150'

35

130' 3" weathered Qtz
 vein, Py → Fe ox.
 extremely porous.

150'

Weathered
 CARBONACEOUS SLATE
 Porous Non-Calcareous
 lengths (up to 3')
 alternating with slightly
 porous calcareous
 lengths.
 Fresh Py appears 174'
 180'

78

BX

Weathered
 calcareous, pyritic
 CARBONACEOUS SLATE.

96

DRILL NO.

TYPE

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 20'

HEAD OFFICE

LOGGED BY

J. L. W.

DRAWN BY

CHECKED BY

SHEET

1 OF 6

DRAWING NO.

DRILLER Minas BranchCOMMENCED 7/7/67COMPLETED 16/10/67

REFERENCES

GEOLOGICAL LOG OF DRILL HOLE

WOODCUTTERS AREA

REMARKS RUM JUNGLE DISTRICT, N.T.

D.D.H. 97-3

CO-ORDINATES

2045.554 RUM Jungle East Grid

R.L. GROUND

Length

790'

ANGLE FROM HORIZONTAL

65°

DIRECTION E

DESCRIPTION OF CORE

R.L. DEPTH
CASING SIZE OF
CORE

LOG

LIFT
G CORE
RE
COVERY
%

SAMPLES

REMARKS

ASSAYS

200'

weathered
calcareous pyritic
CARBONACEOUS SLATE

96

244' 6" Highly porous zone

250'

Pyritic, calcareous
CARBONACEOUS SLATE

98

BX

260'

Weathered
CARBONACEOUS SLATE
Core extremely broken

50

300'

302'

calcareous pyritic
CARBONACEOUS SLATE

88

354'

Weathered
CARBONACEOUS SLATE
some unweathered
lengths up to 3'

AX

27

Recovery very poor
core extremely broken

SHEET NO.

DATE

CASING IN HOLE DURING DRILLING

EXPLANATION

1" - 20'

HEAD OFFICE

LOGGED BY

J. L. W.

DRAWN BY

CHECKED BY

SHEET

2 OF 6

DRAWING NO.

Vines Branch

7/7/57

11/5/57

REFERENCES

GEOLOGICAL LOG OF DRILL HOLE

WOODCUTTERS AREA REMARKS RUM JUNGLE DISTRICT N.T.
 D.D.M. 57/B CO-ORDINATES 204 S. 35 E. Rum Jungle East Grid GROUND Length 790'
 LOCATION ANGLE FROM HORIZONTAL 65° DIRECTION E

DESCRIPTION OF CORE	R.L. CASING	DEPTH SIZE OF CORE	LOG	LIFT 6 CORE RE COVERY %	SAMPLES	REMARKS	ASSAYS
Weathered CARBONACEOUS SLATE				27			
420'							
Pyritic calcareous CARBONACEOUS SLATE			27°				
			(66°)				
			23° (62°) opp.				
379' 1" Qtz-calcite vein							
		AX	25° (66°) opp.	93			
			22°				
			20° (60°) opp.				
			18° (59°) opp.				
355' } Numerous Qtz. - calcite veins to			40° (62°) opp.				
368' } 1" in width			16° (60°) opp.				
500'							

DRILL NO.	EXPLANATION	HEAD OFFICE
TYPE	CASING IN HOLE DURING DRILLING H	LOGGED BY J.L.W.
DRILLER Minns Branch	20° bedding } Measured as angle to core normal	DRAWN BY
COMMENCED 7/7/67	(60°) cleavage } - opposite sense.	CHECKED BY
COMPLETED 16/10/67		SHEET 3 OF 6
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT WOODCUTTERS AREA REMARKS RUM JUNGLE DISTRICT N.T.
 HOLE NO. D.D.H. 7-3 CO-ORDINATES 204 S. 35 E. Rum Jungle East Grid GROUND Length 790'
 LOCATION 65° ANGLE FROM HORIZONTAL 65° DIRECTION E.

600'

605' } slump zone
 607' } fractures filled
 with Qtz. - calcite.

CARBONACEOUS SLATE
 Pyritic, calcareous.

15°
 (50°)
 opp.

10°
 (55°) 93
 opp.

(50°)

AX

700'

706' } slump zone
 710' } Fractures filled
 with Qtz. - calcite.

10°
 (45°)
 opp.

721' 2" calcite vein

731' SULPHIDE LODGE
 see detailed log sheets
 5 and 6

80

753' CARBONACEOUS SLATE
 Pyritic and calcareous

93

775' 2" Qtz. calcite vein

18°

790' Total Depth

800'

DATE	EXPLANATION	HEAD OFFICE
TIME	CASING IN HOLE DURING DRILLING	LOGGED BY
		DRAWN BY
		CHECKED BY
		SHEET
		DRAWING NO.

1" = 20'

REFERENCES

Mines Branch. 20° bedding. } Measured as angle to Core normal
 7/7/67. (60°) cleavage }
 7/10/67. opp. = opposite sense.

GEOLOGICAL LOG OF DRILL HOLE

PROJECT: WOODCUTTERS AREA. III MARKS: RUM JUNGLE DISTRICT N.T.
 REF. NO. D.D.H. 17-5 CO-ORDINATES 2045.35E. Rum Jungle East Grid. GROUND length 790!
 DIST. 710. ANGLE FROM HORIZONTAL 65° DIRECTION E

DESCRIPTION OF CORE	R.L.	DEPTH	LOG	LIFT & CORE RECOVERY %	SAMPLES	REMARKS	ASSAYS
	CASING	SIZE OF CORE					
Calcareous Pyritic CARBONACEOUS SLATE							
731'							
741' minor gal. in calcite veins.							
Fine-grained galena with minor Py & calcite.							
743'8"							
Fine-grained galena, with increased % py & calcite up to 10%.							
745'							
Fine-grained galena, minor py & calcite.				93			
745'8"							
calcite & pyrite greatly increased to 15%							
745'							
745'8" Fine-grained galena, 743'10" minor py & calcite							
Transition to greenish-grey rock containing calcite, quartz & mica.		AX					
Galena decreasing.							
752' Pyrite = 10%				45			
753'							
755'							
CARBONACEOUS SLATE							
Minor galena with graphite on shear planes							
756'4"							
calcareous pyritic CARBONACEOUS SLATE.				70			
758'							
760'				80			

Note: Recovery is between plugs.

DRILL NO.	EXPLANATION 1" = 2'	HEAD OFFICE
TYPE	CASING IN HOLE DURING DRILLING H	LOGGED BY J.L.W.
DRILLER Mines Branch	REFERENCES	DRAWN BY
COMMENCED 7/7/67		CHECKED BY
COMPLETED 16/10/67		SHEET 5 OF 6
		DRAWING NO.

GEOLOGICAL LOG OF DRILL HOLE

NORTH YOODCUTTERS AREA

REMARKS. RUM JUNGLE DISTRICT

HOLE NO. 221. 07-0

CO-ORDINATES 2045. 35E. Rum Jungle East Grid. Length

DATE 10/10/57

ANGLE FROM HORIZONTAL 65°

DIRECTION E

DESCRIPTION OF CORE

R.L.

DEPTH

LOG

LIFT
&
CORE
RE
COVERY
%

SAMPLES

REMARKS

ASSAYS

calcareous Pyritic
CARBONACEOUS SLATE.
with a py-gal. bleb.

80

See detail log

Golden Dyke Formation Throughout

Core scraped for spectro scan

Electric & Radiometric Logs Run.

Core split between 738' - 761' and assayed for
Cu, Pb, Zn, Ag, Cd, Fe, & S.

Tropari Survey

400' - 57° 097°

600' - 39° 087°

750' - 40° 097°

DRILL NO.

TYPE

CASING IN HOLE DURING DRILLING

EXPLANATION

1" = 2'

HEAD OFFICE

LOGGED BY

J. L. W.

DRAWN BY

CHECKED BY

DRILLER. Mines Branch

REFERENCES

COMMENCED 7/7/57

COMPLETED 10/10/57

SHEET 6 OF 6

DRAWING NO.

APPENDIX 3.

ASSAY AND ANALYTICAL RESULTS OF DIAMOND DRILL HOLES.

D.D.H. 66-1

2088 42E - 50W

Split Core Assays

<u>DEPTH</u>	<u>SAMPLE NO.</u>	<u>BATCH NO.</u>	<u>AMDEL NO.</u>
362 - 404	67120158 - 67120171	67/8	AN3034/67
404 - 431	66125001 - 66125009	-	AN2773/66
431 - 440	66125001 - 66125013	-	AN 221/67
440 - 446	66125096 - 66125097	-	AN 937/67

Scrape Core Analyses

<u>DEPTH</u>	<u>SAMPLE NO.</u>	<u>BATCH NO.</u>	<u>AMDEL NO.</u>
239 - 494	66125081 - 66125087	-	AN610/67
407 - 430	66125010	-	AN2773/66
440 - 474	66125088 - 66125089	-	AN610/67

July, 1966.

D.D.H. 66-1

WOODCUTTERS AREA

SPECTRO SCAN OF SCRAPE CORE

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Cd	Bi	Ag	Cr	V	W	Mo	Ca	Ge	As	Sb	Mn	Be
66125081	239 - 264	100	2000	2000	10	20	6	5	2	2.0	30	120	20	8	15	2	400	200	60	
82	264 - 289	60	250	1200	15	25	6	3	2	1.5	20	40	25	10	15	1	100	50	30	
83	289 - 314	60	200	120	12	15	3	-3	1	1.2	15	15	50	7	5	1	100	-30	40	
84	314 - 338	60	120	150	10	20	10	-3	1	2.5	15	20	30	7	5	1	70	-30	30	
85	338 - 362	50	700	200	25	15	5	3	2	1.5	15	20	40	6	7	1	70	-30	40	
86	362 - 386	-100	-10000	4000	30	30	5	50	2	3.0	80	200	20	8	25	2	500	40	25	
66125087	386 - 404	80	8000	10000	50	120	10	100	1	3.0	70	150	60	8	15	1	200	-30	500	
66125010	407 - 430	200	-10000	-10000	15	25	150	150	3	60.0	15	8	30	2	15	-	7000	1200	300	2
66125088	440 - 459	50	60	400	8	25	4	-3	1	5.0	20	50	25	7	5	-1	-50	30	50	
89	459 - 474	50	120	5000	40	50	7	10	2	2.0	20	20	40	5	5	-1	80	150	700	

Results in p.p.m.

D.D.H. 66 - 1.

WOODCUTTERS AREA

SPLIT CORE

SAMPLE NO.	DEPTH (Feet)	COPPER Cu %	LEAD Pb %	ZINC Zn %	NICKEL Ni %	CADMIUM Cd %	ARSENIC As %	SILVER Ag ozs/long ton	GOLD Au %	CORALT Co %	MOLYBDENUM Mo %	ANTIMONY Sb %	PHOSPHOROUS P %	CHROMIUM Cr %
67120158	362-365		0.02	0.007		0.002	0.004	0.0002						
59	365-368		0.02	0.006		0.002	0.004	0.0002						
60	368-371		0.02	0.007		0.002	0.004	0.0002						
61	371-374		0.01	0.010		0.002	0.004	0.0002						
62	374-377		2.3	0.180		0.004	0.073	0.0006						
63	377-380		9.7	0.620		0.010	0.134	0.0002						
64	380-383		5.6	0.060		0.008	0.192	0.0002						
65	383-386		0.47	1.85		0.015	0.097	0.0004						
66	386-389		1.2	0.080		0.050	0.064	0.0002						
67	389-392		0.55	0.44		0.009	0.039	0.0004						
68	392-395		0.02	0.015		0.002	0.007	0.0004						
169	396-398		0.24	0.67		0.006	0.034	0.0004						
70	398-401		0.85	4.20		0.040	0.029	0.0002						
67120171	401-404		0.18	3.30		0.020	0.033	0.0002						
66125001	404-407	0.014	0.26	0.98	0.011			0.5	-0.01	0.005	0.006			
02	407-410	0.019	0.18	0.26	0.008			0.6	0.01	0.004	0.001			
03	410-413	0.010	0.19	0.90	0.012			0.2	-0.01	0.004	0.008			
04	413-416	0.010	0.18	0.44	0.010			0.3	-0.01	0.005	-0.001			
05	416-419	0.007	0.16	0.48	0.008			0.3	-0.01	0.005	0.002			
06	419-422	0.045	0.18	2.3	0.016			0.5	-0.01	0.004	0.002			

D.D.H. 66-1.

WOODSUTTERS AREA

SPLIT CORE

SAMPLE NO.	DEPTH (Feet)	COPPER Cu %	LEAD Pb %	ZINC Zn %	NICKEL Ni %	CADMIUM Cd %	ARSENIC As %	SILVER Ag ozs/100g ton	GOLD Au ton	COBALT Co %	MOLYBDENUM Mo %	ANTIMONY Sb %	PHOSPHOROUS P %	GERMANIUM Ge P.P.M.
66125007	422-425	0.023	0.27	4.9	0.015			1.1	0.01	0.004	-0.001			
08	425-428	0.014	0.32	6.2	0.018			2.6	0.01	0.006	0.007			
09	428-431	0.048	0.21	12.9	0.018			0.7	0.01	0.009	0.005			
66125011	431-434	0.005	0.28	8.75			0.011	-0.01	-0.01			0.004		
12	434-437	-0.005	0.03	6.75			0.009	-0.1	-0.01			0.007		
66125013	437-440	-0.005	0.02	2.25			0.009	-0.1	-0.01		ppm.	-0.001		
66125096	440-443	0.002	0.01	0.015		0.003	0.008	-0.1	-0.01	0.001	25	ppm. -30	0.04	1
66125097	443-446	0.002	0.01	0.008		0.003	0.004	-0.1	-0.01	-0.001	20	-30	0.04	1

Radiometric Assays (B.M.R. Darwin)

Depth	U308
431-434	0.002
434-437	0.002
437-440	0.002

Mines Branch Lab Darwin Atomic Absorption.

66125004	413-416	Pb 0.67%	Zn 0.34%
66125009	428-431	1.8%	4.8%

D.D.H. 66 - 1

WOODCUTTERS AREA

SPLIT CORE

Sample No.	Depth	Sulphur S %	Acid Soluble Iron Fe %
66125006	419' - 422'	34.1	31.4
7	422' - 425'	36.8	31.8
8	425' - 428'	35.9	27.1
66125009	428' - 431'	22.9	23.8

D.D.H. 66 - 2.

204S 33E -60°E

SPLIT CORE ASSAYS.

<u>DEPTH</u>	<u>SAMPLE NO.</u>	<u>BATCH NO.</u>	<u>ANDEL NO.</u>
265-277	66125098 - 66125101	-	AN937/67
277-299	66125014 - 66125020	-	AN221/67

SCRAP CORE ANALYSES.

<u>DEPTH</u>	<u>SAMPLE NO.</u>	<u>BATCH NO.</u>	<u>ANDEL NO.</u>
211-352	66125090 - 66125095	-	AN610/67

D.D.H. 66 - 2.

WOODCUTTERS AREA

SPECTRO SCAN OF SCRAPE CORE

CON. NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Cd	Bi	Ag	Cr	V	W	Mo	Ca	Ge	As	Sb	Mn
66125090	211-235	250	80	200	8	20	3	3	3	0.8	40	150	-20	7	20	2	150	-30	15
91	235-259	50	50	1000	10	40	2	40	2	1.5	25	30	20	7	20	-1	-50	-30	20
92	259-277	20	400	5000	50	250	4	150	1	1.2	20	25	25	5	15	-1	80	-30	200
93	299-308	50	120	660	8	12	8	5	-1	1.5	10	15	20	5	4	1	50	-30	70
94	308-332	50	400	500	8	15	10	6	1	1.5	12	20	25	6	6	2	70	80	70
66125095	332-352	80	70	200	10	30	5	3	2	1.5	15	25	30	6	8	-1	70	-30	50

Elements not detected: Au, Be, In, Pd, Os, Ir, Fe, Rh, Ru, Hb, Ta
Results in PPM

D.D.H. 66 - 2.WOODCUTTERS AREAASSAY OF SPLIT CORE

CON. NO.	DEPTH	ANTIMONY Sb %	ARSENIC As %	SILVER Ag ozs/ton	GOLD Au ton	LEAD Pb %	ZINC Zn %	COPPER Cu %	CADMIUM Cd %	PHOSPHORUS P %	COBALT Co %	GERMANIUM Ge P.P.M.	MOLYBDENUM Mo P.P.M.
66125008	265-268	-30	0.006	-0.1	-0.01	0.02	0.080	0.004	0.005	0.004	0.001	-1	25
99	268-271	-30	0.007	-0.1	0.05	0.01	0.020	0.002	0.006	0.03	-0.001	1	20
100	271-274	-30	0.011	0.1	-0.01	0.03	0.13	0.005	0.007	0.04	0.001	1	30
101	274-277	-30	0.015	-0.1	-0.01	0.03	0.18	0.004	0.008	0.04	0.002	-1	25
66125014	277-280	0.010	0.035	-0.1	-0.01	2.40	2.45	-0.005					
15	280-283	0.015	1.16	1.3	-0.01	5.15	0.77	0.080					
16	283-286	-0.001	0.70	0.2	-0.01	2.90	0.22	0.010					
17	286-289	0.020	0.155	-0.1	0.01	1.20	0.50	-0.005					
18	289-292	0.060	0.034	-0.1	-0.01	0.83	0.54	-0.005					
19	292-296	0.075	0.132	0.1	-0.01	0.90	0.40	-0.005					
66125020	296-299	0.002	0.035	0.1	-0.01	0.51	0.60	-0.005					

RADIOMETRIC ASSAYS (B.M.R. DARWIN) U₃O₈

277 - 280	0.003	289 - 292	0.005
280 - 283	0.005	292 - 296	0.006
283-286	0.007	296 - 299	0.003
286 - 289	0.009		

D.D.H. 66 - 3.

220S 33E - 60° E

SPLIT CORE ASSAY.

DEPTH

SAMPLE NO.

BATCH NO.

ANDEL NO.

482'6" - 592'6"

66125037 - 66125059

AN541/67

DEPTH

SAMPLE NO.

BATCH NO.

ANDEL NO.

185 - 646'6"

66125060 - 66125080

SCRAPE CORE ANALYSES.

AN541/67

WOODCUTTERS AREA

SCRAPE CORE

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Cd	Bi	Ag	Cr	V	W	Mo	Be	Ga	Ge	In	Mn	As	Sb
66125060	185 - 209	70	50	120	5	10	2	5	2	1.5	80	80	-20	2	2	10	1	-1	150	-50	-30
61	209 - 233	60	50	120	8	60	6	3	2	1.5	150	300	-20	6	2	20	1	-1	80	-50	-30
62	233 - 257	70	100	300	8	40	8	3	2	2	150	300	-20	1	1	40	2	-1	60	-50	-30
63	257 - 283	70	120	150	6	15	10	-3	-1	1.5	10	20	-20	10	1	5	1	-1	60	-50	-30
64	283 - 308	60	60	60	8	10	6	-3	2	1.5	20	30	20	6	1	10	1	-1	100	-50	-30
65	308 - 333	70	70	100	12	20	7	8	2	4	30	60	25	8	1	10	-1	-1	100	-50	-30
66	333 - 357	80	70	120	20	20	10	-3	1	2	15	50	40	4	1	5	-1	-1	200	-50	-30
67	357 - 382	80	70	150	20	20	6	5	2	3	15	40	25	5	1	5	-1	-1	300	-50	-30
68	382 - 402	150	200	400	15	20	8	10	2	5	30	50	20	7	-1	5	-1	-1	100	-50	-30
69	402 - 432	60	200	600	10	15	8	6	1	2.5	20	25	20	6	1	3	-1	-1	150	-50	-30
66125070	432 - 456	60	1000	2000	5	10	8	25	2	5	12	12	20	4	2	3	-1	-1	300	120	50
71	456 - 489	20	800	150	4	3	25	-3	3	3	6	5	20	2	-1	-1	-1	-1	2000	400	-30
72	489 - 509	150	2000	200	15	25	50	5	30	20	8	10	20	3	-1	2	-1	-1	1000	800	500
73	509 - 529	300	10000	10000	3	1	100	2500	25	100	-3	2	30	-1	-1	-1	-1	-1	50	10000	10000
74	529 - 549	500	10000	10000	3	3	500	6000	25	300	-3	4	50	-1	-1	5	1	25	30	10000	10000
75	549 - 559	600	10000	10000	8	5	500	6000	20	250	-3	3	150	1	-1	3	1	10	20	10000	10000
76	559 - 577	600	10000	10000	10	7	400	6000	15	1200	5	10	200	1	-1	10	-1	20	50	6000	10000
77	577 - 583	200	10000	10000	6	1	400	6000	15	1500	-3	1	300	-1	-1	3	1	-1	15	3000	6000
78	583 - 600	60	10000	10000	10	5	30	80	3	150	4	2	20	-1	-1	-1	-1	-1	2000	400	200
79	600 - 620	80	300	500	5	8	7	3	12	4	15	15	25	8	2	8	1	-1	600	-50	-30
66125080	620 - 646'6"	20	250	200	3	7	6	-3	3	2	10	12	20	7	2	5	1	-1	300	-50	-30

Elements not detected: Au, Pd, Os, Pt, Ir, Rh, Ru, Nb, Ta.

Results in p.p.m.

D.D.H. 66 - 3.

WOODCUTTERS AREA

ASSAY OF SPLIT CORE

CON. NO.	DEPTH	Mo ppm.	Ge ppm.	As oz./lb.	Ag ton	As %	P %	Cu %	Pb %	Zn %	Co %	Cd %	Sb %
66125037	482'6"-487'6"	3	-1	0.02	0.8	0.04	0.05	-0.005	0.05	0.02	0.001	-0.001	-0.001
38	487'6"-492'8"	2	-1	-0.01	-0.1	0.79	0.28	0.045	1.45	2.50	0.004	0.002	0.10
39	492'8"-503'10"	1	-1	0.01	0.1	0.24	0.10	0.005	0.05	-0.01	0.004	-0.001	0.01
40	503'10"-508'10"	4	-1	-0.01	0.1	0.08	0.05	0.010	0.10	0.06	0.001	-0.001	0.02
41	508'10"-514'10"	-1	-1	0.03	4.8	2.20	0.72	0.060	1.30	0.20	0.003	0.002	0.52
42	514'10"-520'1"	1	1	0.05	0.6	1.05	0.28	-0.050	2.65	4.38	0.003	0.031	0.43
43	520'1"-523'1"	1	-1	0.02	2.4	0.70	0.28	0.115	8.65	19.2	0.003	0.170	0.95
44	523'1"-526'1"	1	-1	0.02	6.0	0.87	0.30	0.200	13.3	24.2	0.001	0.195	2.85
45	526'1"-528'1"	3	2	0.02	1.2	0.43	0.24	0.060	8.05	34.6	0.001	0.275	0.86
46	528'1"-533'3"	1	1	-0.01	-0.1	0.34	0.17	0.070	5.95	24.0	0.001	0.205	0.26
47	533'3"-538'3"	1	1	0.01	1.5	0.12	0.62	0.190	5.00	23.3	0.003	0.195	0.88
48	538'3"-543'3"	-1	-1	0.01	1.1	0.03	0.42	0.010	2.10	4.1	0.001	0.029	0.06
49	543'3"-548'3"	1	-1	0.01	4.3	0.02	0.23	0.040	6.15	16.1	0.001	0.130	0.56
50	548'3"-553'3"	1	4	0.01	5.8	0.76	0.29	0.100	5.00	39.4	-0.001	0.305	1.60
51	553'3"-558'6"	4	1	0.01	4.3	0.40	0.18	0.030	6.50	15.4	-0.001	0.130	1.55
52	558'6"-561'6"	3	2	-0.01	3.0	0.23	0.12	0.005	3.15	14.7	-0.001	0.115	0.13
53	561'6"-564'0"	1	1	-0.01	49.9	0.52	0.22	0.120	51.5	11.0	0.001	0.100	1.15
54	564'0"-569'6"	3	1	0.01	6.5	0.20	0.12	0.020	10.0	31.2	-0.001	0.240	0.23

(contd.)

D.D.H. 66 - 3.

WOODCUTTERS AREA

ASSAY OF SPLIT CORE

CON NO.	DEPTH	Mo	Cu	Am	Ag	As	P	Cu	P	Zn	Co	Cd	Sb
66125055	569'6"-574'6" 4	1		-0.01	4.5	0.13	0.08	0.030	4.45	35.2	0.001	0.275	0.21
56	574'6"-579'6" 7	1		0.01	28.5	0.05	0.04	0.030	16.0	32.4	-0.001	0.260	0.15
57	579'6"-583'0" 4	1		0.01	34.0	0.14	0.06	0.040	40.9	23.7	-0.001	0.205	0.47
58	583'0"-587'6" 1	-1		-0.01	2.8	0.09	0.05	0.010	4.30	4.1	-0.001	0.032	0.19
66125059	587'6"-592'6" 2	-1		-0.01	-0.1	0.03	0.02	-0.005	0.03	0.03	-0.001	-0.001	0.002
		ppm	ppm	oz/long/ton		%	%	%	%	%	%	%	%

Average Grade 514'10" to 587'6" (72'8")

Lead 9.85%
Zinc 20.98%
Silver 8.02 ozs/ton

WOODCUTTERS AREAD.D.H. 66-3SPLIT CORE

<u>Sample No.</u>	<u>Depth</u>	<u>Sulphur</u> <u>S</u> <u>%</u>	<u>Acid Soluble</u> <u>Iron</u> <u>Fe</u> <u>%</u>
66125041		42.3	36.3
2		41.6	33.9
3		40.0	24.2
4		33.2	15.3
5		24.4	5.2
6		32.0	15.5
7		35.5	19.2
8		42.1	33.6
9		33.5	20.5
50		29.7	7.7
1		27.0	14.9
2		23.5	13.5
3		19.4	6.5
4		28.4	9.1
5		28.8	7.8
6		21.0	2.2
7		20.0	1.7
66125058		3.75	1.2

D.D.H. 66 - 5.

192S 37E -60°E

SPLIT CORE ASSAY.

DEPTH

SAMPLE NO.

BATCH NO.

ANDEL NO.

380 - 404

66125113 - 66125120

AN1192/67

SCRAPE CORE ANALYSES.

DEPTH

SAMPLE NO.

BATCH NO.

ANDEL NO.

197 - 380

66125182 - 66125189

AN1371/67

407 - 487

66125190 - 66125194

AN1371/67

D.D.R. 66 - 5.WOODCUTTERS AREA.SPECTRO SCAN OF SCRAPED CORE.

CON. NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Cd	Bi	Ag	Cr	V	W	Be	Mo	Ca	Ge	As	Sb	Mn
66125182	197-221	50	40	300	10	100	2	2	1	0.7	200	400	-20	-1	-1	25	1	70	-30	400
83	221-245	50	40	60	3	80	-1	3	-1	1.2	300	300	-20	-1	1	25	-1	-50	-30	300
84	245-269	50	30	70	5	60	2	3	1	1.5	25	30	-20	-1	2	15	1	-50	-30	100
85	269-294	40	60	150	5	30	3	4	1	2.0	20	25	20	-1	3	12	1	-50	-30	80
86	294-317	40	70	200	4	70	2	-3	3	10.0	15	25	20	1	3	10	1	-50	-30	50
87	317-342	30	60	120	4	15	3	3	1	1.2	15	20	20	1	1	10	-1	-50	-30	200
88	342-365	40	40	50	5	40	2	3	1	1.5	25	30	20	-1	4	20	-1	50	-30	800
89	365-380	40	80	50	6	30	3	4	2	1.2	20	20	25	-1	4	15	-1	-50	-30	400
90	407-415	40	100	150	5	8	3	4	1	3.0	15	15	25	-1	3	12	-1	-50	40	500
91	415-438	120	80	60	6	70	5	-3	1	3.0	120	300	25	-1	8	30	2	150	-30	200
92	438-461	40	50	50	5	20	4	-3	1	2.0	10	12	20	-1	3	10	-1	-50	-30	1200
93	461-480	40	100	40	8	20	2	-3	1	2.0	25	25	20	-1	3	20	1	-50	-30	120
66125194	480-487	50	150	50	10	25	3	-3	1	2.0	25	30	20	-1	5	20	1	-50	-30	80

Elements not detected: Au, In, Pd, Cs, Ir, Pt, Rh, Ru, Nb, Ta

D.D.H. 66 - 5.

<u>WOODCUTTERS AREA.</u>		<u>ASSAY OF SPLIT CORE.</u>						
CON. NO.	DEPTH	Gold Au ons/long/ton	Silver Ag	Copper Cu %	Lead Pb %	Zinc Zn %	Cadmium Cd %	Phosphorus P %
66125113	380 - 383	-0.01	-0.1	0.005	0.01	0.010	-0.001	0.04
14	383 - 386	-0.01	-0.1	0.015	-0.01	0.008	-0.001	0.11
15	386 - 389	-0.01	-0.1	0.010	-0.01	0.008	-0.001	0.09
16	389 - 392	0.01	-0.1	0.008	-0.01	0.020	-0.001	0.12
17	392 - 395	-0.01	-0.1	0.010	0.01	0.006	-0.001	0.13
18	395 - 398	0.01	-0.1	0.010	0.01	0.008	-0.001	0.13
19	398 - 401	-0.01	-0.1	-0.002	-0.01	0.015	-0.001	0.03
66125120	401 - 404	-0.01	-0.1	0.002	-0.01	0.015	-0.001	0.03

D.D.H. 66 - 6.

2163 35E -60°E

SPLIT CORE ASSAY.

DEPTH

SAMPLE NO.

BATCH NO.

ANDEL NO.

497 - 554

66125121 - 66125140

AN1232/67

DEPTH

SAMPLE NO.

BATCH NO.

SCRAPE CORE ANALYSES.

ANDEL NO.

181 - 497

66125215 - 66125229

AN1529/67

555 - 572

66125230

AN1529/67

D.D.H. 66-6.

WOODCUTTERS AREA

SPECTRO SCAN OF SCRAPED CORE

CON NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Ag	Bi	Cd	Cr	V	Ca	W	Mo	Be	Ce	Sb	As	Mn
66125215	181 - 199	40	120	120	8	50	3	1.0	4	-3	100	120	15	25	7	1	-1	-30	70	60
16	199 - 213	150	50	100	10	40	4	1.0	3	-3	40	70	12	30	7	1	1	-30	50	50
17	213 - 239	100	50	80	6	12	3	1.5	2	-3	40	40	20	25	5	-1	1	-30	-50	40
18	239 - 263	40	40	70	3	4	5	0.1	-1	-3	12	10	3	-20	4	1	-1	-30	-50	60
19	263 - 287	70	40	70	5	15	6	0.7	1	-3	30	20	6	20	5	-1	-1	-30	-50	70
20	289 - 308	60	100	100	5	15	5	0.2	1	-3	25	20	5	25	4	1	-1	-30	-50	70
21	308 - 330	30	50	80	3	7	3	1.5	-1	-3	20	15	5	-20	3	1	-1	-30	-50	80
22	330 - 354	50	200	800	10	50	3	0.6	2	12	50	200	15	20	7	1	1	-30	60	40
23	354 - 377	60	70	80	30	20	7	0.8	2	-3	40	120	20	150	50	1	-1	-30	-50	60
24	377 - 399	80	150	120	8	25	3	1.5	3	-3	50	120	30	25	20	-1	1	-30	-50	80
25	399 - 421	50	70	70	2	10	5	1.0	-1	-3	20	50	4	20	10	1	-1	-30	250	80
26	421 - 444	26	50	50	-1	1	3	0.2	-1	-3	3	2	1	-20	1	-1	-1	-30	60	250
27	444 - 467	20	40	50	2	3	4	0.2	-1	-3	7	8	2	-20	6	1	-1	-30	50	100
28	467 - 489	25	1200	1500	6	15	25	2.0	1	8	25	70	12	20	8	-1	-1	-30	-50	400
29	489 - 497	20	120	70	2	3	6	0.4	-1	-3	12	12	5	20	7	1	-1	-30	50	600
66125230	555 - 572	12	60	60	3	3	5	0.2	-1	-3	10	12	3	-20	7	1	-1	-30	120	100

(N.B. 497 - 554 split and assayed)

Elements not detected: Au, In, Pd, Os, Pt, Ir, Rh, Ru, Nb, Ta.

RESULTS in P.P.M.

D.D.H. 66 - 6.WOODCUTTERS AREAASSAY OF SPLIT CORE

CON. NO.	DEPTH	Gold Au ozs/long ton	Silver Ag	Copper Cu %	Lead Pb %	Zinc Zn %	Phosphorus P %	Cadmium Cd %	Nickel Ni %
66125121	497 - 500	0.01	-0.1	0.005	0.01	0.010	0.02	-0.001	0.003
22	500 - 503	0.01	-0.1	0.002	0.52	0.23	0.05	0.003	0.003
23	503 - 505	-0.01	0.4	0.006	1.72	2.40	0.06	0.020	0.004
24	505 - 507	0.01	-0.1	0.015	1.85	1.65	0.72	0.015	0.010
25	507 - 509	-0.01	-0.1	0.002	0.03	0.020	0.04	0.001	0.005
26	509 - 512	0.01	-0.1	-0.002	0.03	0.025	0.03	0.001	0.005
27	512 - 515	0.01	-0.1	0.004	0.04	0.020	0.04	0.001	0.006
28	515 - 518	-0.01	0.9	0.035	1.32	0.30	0.03	0.004	0.006
29	518 - 521	-0.01	18.1	0.19	24.2	25.1	0.16	0.200	0.005
30	521 - 524	-0.01	5.3	0.15	6.1	21.8	0.29	0.180	0.008
31	524 - 527	-0.01	3.6	0.03	6.0	10.9	0.39	0.100	0.013
32	527 - 520	-0.01	3.5	0.07	3.75	12.0	0.43	0.100	0.013
33	530 - 533	-0.01	8.1	0.12	15.4	17.9	0.36	0.150	0.007
34	533 - 536	0.01	0.6	0.11	1.95	9.2	2.00	0.090	0.009
35	536 - 539	0.01	0.5	0.12	2.1	20.0	0.61	0.180	0.040

(cont).

D.D.H. 66 - 6.

WOODCUTTERS AREA.

ASSAY OF SILT CORE (CONTD.)

CON. NO.	DEPTH	Gold Au ozs / long ton	Silver Ag	Copper Cu %	Lead Pb %	Zinc Zn %	Phosphorus P %	Cadmium Cd %	Nickel Ni %
66125136	539 - 542	-0.01	-0.1	0.13	0.04	0.06	0.15	0.002	0.080
37	542 - 545	-0.01	-0.1	0.005	0.03	0.020	0.13	0.001	0.075
38	545 - 548	-0.01	-0.1	0.008	0.04	0.045	0.12	0.001	0.070
39	548 - 551	0.01	0.1	0.006	0.10	0.020	0.28	0.001	0.100
66125140	551 - 554	-0.01	-0.1	0.002	0.06	0.015	0.11	0.001	0.065

WOODCUTTERS AREAD.D.H. 66-6SPLIT CORE

<u>Sample No.</u>	<u>Depth</u>	<u>Sulphur</u>	<u>Acid Soluble</u>
		<u>S</u> <u>%</u>	<u>Iron</u> <u>Fe</u> <u>%</u>
66125128	515' - 518'	0.78	1.1
9	518' - 521'	25.6	9.0
30	521' - 524'	35.5	21.0
1	524' - 527'	34.7	23.9
2	527' - 530'	36.9	26.0
3	530' - 533'	35.4	19.7
4	533' - 536'	41.4	33.3
66125125	536' - 539'	31.7	19.0

D.D.H. 66 - 7.

224S 33E - 60°E

SPLIT CORE ASSAY.

DEPTH

SAMPLE NO.

BATCH NO.

ANDEL NO.

474 - 553

66125141 - 66125166

AN1319/67

553 - 598

66125167 - 66125181

AN1344/67

SCRAPE CORE ANALYSES.

DEPTH

SAMPLE NO.

BATCH NO.

ANDEL NO.

244 - 474

66125202 - 66125211

AN1529/67

598 - 652

66125212 - 66125214

AN1529/67

D.D.H. 66 - 7. (Cont)

ASSAY OF SPLIT CORE (Cont)

CON. NO.	DEPTH	Gold Au ozs / lb ₉	Silver Ag ton	Copper Cu %	Lead Pb %	Zinc Zn %	Cadmium Cd %	Phosphorus P %
66125160	532 - 535	-0.01	-0.1	0.007	0.01	0.010	0.0003	0.02
61	535 - 538	0.02	-0.1	0.007	0.01	0.010	0.0003	0.03
62	538 - 541	0.01	-0.1	0.008	0.02	0.009	0.0004	0.03
63	541 - 544	-0.01	-0.1	0.007	0.01	0.015	0.0004	0.03
64	544 - 547	-0.01	-0.1	0.006	0.02	0.013	0.0003	0.03
65	547 - 550	-0.01	-0.1	0.007	0.01	0.013	0.0002	0.03
66125166	550 - 553	-0.01	-0.1	0.007	0.02	0.010	0.0003	0.04
67	553 - 556	0.01	-0.1	0.005	0.02	0.008	0.0004	0.03
68	556 - 559	0.01	-0.1	0.004	0.02	0.006	0.0004	0.03
69	559 - 562	0.01	-0.1	0.004	0.01	0.008	0.0004	0.03
70	562 - 565	0.02	-0.1	0.003	0.03	0.003	0.0004	0.09
71	565 - 568	-0.01	-0.1	0.005	0.03	0.008	0.0004	0.04
72	568 - 571	-0.01	-0.1	0.003	-0.01	0.003	0.0004	0.02
73	571 - 574	-0.01	-0.1	0.005	0.01	0.010	0.0004	0.02
74	574 - 577	-0.01	-0.1	0.007	0.01	0.008	0.0004	0.03
75	577 - 580	-0.01	-0.1	0.010	0.05	0.009	0.0004	0.03
76	580 - 583	-0.01	-0.1	0.019	0.04	0.012	0.0005	0.10
77	583 - 586	-0.01	-0.1	0.007	0.05	0.038	0.0006	0.15

D.D.H. 66 - 7. (cont.)

ASSAY OF SPLIT CORE

CON. NO.	DEPTH	Gold Au ozs / ton	Silver Ag t. oz	Phosphorus P %	Lead Pb %	Copper Cu %	Zinc Zn %	Cadmium Cd %
66125178	586 - 589	0.01	0.2	0.10	0.02	0.016	0.021	0.0005
79	589 - 592	0.01	0.1	0.03	0.01	0.009	0.013	0.0005
80	592 - 595	0.01	0.1	0.03	0.01	0.004	0.009	0.0005
66125181	595 - 598	0.03	0.1	0.03	0.01	0.004	0.006	0.0004

D.D.H. 66 - 11.

220S 33E -75°E

SCRAPE CORE ANALYSES

<u>DEPTH</u>	<u>SAMPLE NO.</u>	<u>BATCH NO.</u>	<u>ANDEL NO.</u>
100' - 1015'	67120056 - 67120095	67/4	AN2544/67
914' - 960'	67120251 - 67120252	67/13	AN68/68

SILVER SOLDER ANALYSES

<u>DEPTH</u>	<u>SAMPLE NO.</u>	<u>BATCH NO.</u>	<u>ANDEL NO.</u>
891' - 914'	67120253 S.R.	67/14	AN297/68
891' - 914'	67120254	67/14	AN297/68

TWO SAMPLES TO B.M.R.

<u>DEPTH</u>	<u>SAMPLE NO.</u>	<u>BATCH NO.</u>	<u>B.M.R. LAB. NO.</u>
914' - 937'	67120172	67/9	Lab. report No. 19
937' - 960'	67120173	67/9	Lab. report No. 19

D.D.H. 66 - 11.

WOODCUTTERS AREA

SCRAPE CORE

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Bi	Ag	W	Cd	Cr	V	Mo	Be	Ca	Ge	As	Mn	Nb
67120056	100' - 118'	45	15	30	4	12	3	4	0.2	-20	-3	10	10	3	1	5	1	-50	200	-50
57	118' - 136'	50	40	100	7	15	3	2	1.2	-20	-3	20	20	3	2	15	2	-50	300	-50
58	136' - 156'	60	100	150	70	150	3	2	1.5	-20	-3	30	25	4	3	15	1	150	300	-50
59	156' - 180'	50	30	50	4	12	1	1	0.3	-20	-3	15	10	3	2	8	1	-50	200	-50
67120060	180' - 203'	60	80	120	5	50	5	1	0.3	20	-3	25	200	15	3	15	2	-50	200	-50
61	203' - 227'	40	30	60	6	50	1	2	0.4	25	-3	25	100	7	2	15	1	-50	200	-50
62	227' - 248'	25	30	40	4	8	2	1	0.2	20	-3	15	15	4	1	3	-1	-50	100	-50
63	248' - 270'	70	60	80	6	50	6	2	0.6	25	-3	25	120	10	3	15	1	-50	200	-50
64	270' - 293'	80	100	100	6	25	5	2	0.8	25	-3	25	100	8	3	15	1	-50	250	-50
65	293' - 317'	70	60	80	15	30	2	2	1.2	50	-3	40	120	10	3	20	-1	-50	200	-50
66	317' - 345'	30	10	80	10	30	1	4	0.4	30	-3	40	120	10	3	10	1	-50	50	-50
67	345' - 380'	70	7	20	150	120	-1	2	0.6	-20	-3	50	200	10	-1	15	-1	-50	50	80
68	380' - 403'	70	100	60	15	30	3	2	0.6	40	-3	50	50	40	1	10	-1	-50	100	-50
69	403' - 428'	40	50	50	8	25	3	1	0.8	40	-3	30	50	8	3	8	-1	-50	100	-50
67120070	428' - 449'	25	50	30	7	10	3	-1	0.8	30	-3	10	20	6	1	5	-1	-50	50	-50
71	449' - 469'	70	100	120	10	15	3	2	1.0	40	-3	20	30	10	1	10	1	-50	200	-50
72	469' - 494'	70	60	200	10	60	2	2	1.0	30	-3	60	250	10	-1	15	-1	-50	200	-50
73	494' - 510'	40	60	70	4	20	3	2	1.0	30	-3	8	10	6	4	5	1	-50	300	-50
74	510' - 540'	40	60	80	8	50	1	2	1.0	20	-3	15	150	10	-1	8	1	-50	50	-50
67120075	540' - 564'	20	10	25	3	8	2	-1	0.2	25	-3	8	8	5	-1	3	-1	-50	50	-50

WOODCUTTERS AREA

-2-

RDH. 66-11.

SCRAPE CORE

113

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Bi	Ag	W	Cd	Cr	V	Mo	Be	Ga	Ce	As	Mn	Nb
67120076	564' - 587'	60	60	80	8	50	4	2	1.5	25	-3	40	250	15	2	40	1	-50	200	-50
77	587' - 608'	100	60	100	6	30	4	1	3.	20	-3	15	40	10	2	5	-1	-50	300	-50
78	608' - 630'	80	60	200	4	8	4	1	1.5	20	-3	15	30	10	2	3	-1	-50	300	-50
79	630' - 654'	20	40	60	4	6	3	3	1.5	20	-3	10	10	7	2	5	1	-50	300	-50
67120080	654' - 678'	30	30	60	6	5	3	1	6.	25	-3	6	8	4	2	3	1	-50	300	-50
81	678' - 702'	25	60	70	10	3	5	2	2.5	20	-3	6	5	4	1	3	-1	-50	1000	-50
82	702' - 726'	25	50	25	5	2	5	1	1.2	20	-3	6	5	3	-1	1	-1	100	2000	-50
83	726' - 750'	20	50	25	6	5	5	1	2.	20	-3	6	5	2	-1	1	-1	-50	3000	-50
84	750' - 774'	40	50	60	3	5	3	2	1.5	20	-3	6	7	5	1	1	1	-50	600	-50
85	774' - 798'	40	30	30	2	2	3	3	1.5	20	-3	6	5	4	1	5	-1	-50	600	-50
86	798' - 820'	50	250	60	3	4	5	3	2.	20	-3	6	5	8	1	3	1	200	800	-50
87	820' - 843'	50	20	80	7	50	2	1	1.5	20	-3	8	10	6	1	3	-1	-50	80	-50
88	843' - 867'	50	60	60	5	15	3	2	1.5	20	-3	20	20	8	1	3	1	-50	500	-50
67120089	867' - 891'	40	60	40	2	5	3	1	1.5	30	-3	5	4	4	-1	5	-1	100	200	-50

Elements not detected: Au, In, Pd, Sb, Os, Pt, IR, Rh, Ru, Ta.

Results in p.p.m.

WOODCUTTERS AREA

P.D.H. 66-11.

SCRAPE CORE

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Bi	Ag	W	Cd	Cr	V	Mo	Be	Ga	Ce	As	Mn	Nb
67120090	891' - 914'	50	30	30	4	5	4	3	4.	30	-3	10	20	4	1	1	1	80	1000	-50
91	914' - 957'	300	50	200	5	20	6	4	1500.	40	400	10	20	8	2	5	2	50	700	-50
92	957' - 963'	80	60	60	8	40	3	3	8.	30	-3	20	80	10	3	8	1	50	300	-50
93	963' - 984'	40	50	30	6	15	4	1	0.6	25	-3	25	60	8	-1	15	1	-50	100	-50
94	984' - 1007'	60	150	200	5	15	6	3	2.	20	-3	15	30	8	1	5	1	50	300	-50
95	1007' - 1015'	40	120	100	3	8	10	1	3.	20	-3	15	15	6	1	5	1	150	2000	-50

Elements not detected: Au, In, Pd, Sb, Os, Pt, Ir, Rh, Ru, Ta.

Results in p.p.m.

Repeat Analysis 67120091 (914' - 957')

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Bi	Ag	W	Cd	Cr	V	Mo	Be	Ga	Ce	As	Mn
67120251	914' - 937'	80	60	30	6	15	3	4	1.2	25	-3	20	50	8	3	8	1	100	1000
67120252	937' - 960'	150	200	60	7	20	5	3	3	30	-3	100	100	8	5	8	1	60	300

Silver Solder Analysis

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Bi	Ag	W	Cd	Cr	V	Mo	Be	Ga	Ce	As	Mn
67120254	891' - 914'	30	25	25	12	6	2	3	1.2	25	-3	25	15	3	1	6	-1	60	700
67120253 S.S.	891' - 914'	70	25	50	8	8	3	3	40	25	5	20	15	5	1	4	-1	60	500

Elements not detected: Au, In, Pd, Sb, Os, Pt, Ir, Rh, Ru, Ta, Cd.

Results in p.p.m.

D.D.H. 66 - 11

WOODCUTTERS AREA

B.M.R. ANALYSIS

CHEMICAL ANALYSIS

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Ag	Cd	Co	Ni
67120172	914' - 937'	30	25	130	-2	-1	-20	20
67120173	937' - 960'	25	75	130	-2	-1	-20	15

Results in p.p.m.

D.D.E. 66 - 12.

2128 36E -65°E

DEPTH

570 - 610

662 - 698

DEPTH

180 - 775

SAMPLE NO.

67120208 - 67120215

67120022 - 67120033

SAMPLE NO.

67120034 - 67120055

BATCH NO.

67/11

67/2

BATCH NO.

67/3

SPLIT CORE ASSAY

ANDEL NO.

AN3247/67

AN2529/67

SCRAPE CORE ANALYSES

ANDEL NO.

2525/67

WOODCUTTERS AREA

SCRAPE CORE

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Cd	Bi	Ag	Cr	V	W	Mo	Ga	As	Sb	Mn
67120034	180 - 218'	50	1200	80	3	7	2	-3	1	5.0	15	60	20	2	10	300	-30	30
35	218 - 240'	40	70	150	4	20	2	-3	1	1.5	20	30	20	4	12	120	-30	100
36	240 - 263'	40	50	60	3	15	1	-3	1	1.0	20	50	20	5	10	-50	-30	50
37	263 - 287'	30	80	40	5	5	2	-3	1	7.0	12	20	25	5	6	-50	-30	40
38	287 - 310'	30	150	70	4	7	3	-3	-1	1.2	10	15	20	4	5	100	30	100
39	310 - 349'	100	50	150	8	50	3	-3	-1	1.5	12	30	20	10	5	-50	-30	60
40	349 - 381'	40	40	40	7	20	3	-3	2	1.2	10	20	40	5	8	-50	-30	60
41	381 - 415'	20	60	50	4	20	2	-3	1	0.7	10	25	20	5	6	-50	-30	60
42	415 - 449'	40	30	40	8	25	3	-3	1	1.5	15	40	25	5	10	-50	-30	60
43	449 - 482'	25	30	40	3	7	3	-3	1	0.3	12	20	20	4	4	-50	-30	80
44	482 - 500'	25	20	25	5	10	2	-3	1	0.1	15	30	25	4	5	-50	-30	60
45	500 - 534'	15	15	25	3	5	1	-3	-1	0.1	10	15	20	4	4	-50	-30	80
46	534 - 566'	70	12	40	4	50	2	-3	-1	0.5	40	30	20	3	4	150	-30	80
47	566 - 600'	1000	6000	80	40	100	10	-3	3	3.0	20	8	-20	2	3	500	3000	1000
48	600 - 636'	100	1000	300	6	3	4	-3	2	5.0	7	7	-20	2	1	300	30	1000
49	636 - 666'	30	300	80	3	1	5	-3	1	15.0	8	8	-20	3	2	200	50	400
50	666 - 680'	250	4000	500	2	-1	50	6	10	15.0	3	7	20	1	1	5000	7000	30
51	680 - 694'	300	3000	700	10	8	8	3	40	80.0	5	12	20	1	4	2000	3000	50
52	694 - 716'	80	200	25	15	5	3	-3	3	7.0	7	7	30	2	2	200	30	70
53	716 - 734'	30	120	100	5	4	3	-3	1	1.5	10	10	40	5	5	100	-30	100
54	734 - 748'	50	150	30	7	3	3	-3	3	7.0	15	12	40	4	5	100	-30	80
67120055	748 - 775'	30	250	50	60	7	2	-3	4	1.5	15	15	80	4	4	70	-30	80

Elements not detected:

Au, Be, Ge, In, Pd, Pt, O, Ir, Rh, Ru, Nb, Ta.

Results in p.p.m.

D.D.H. 66 - 12.

WOODCUTTERS AREA

SPLIT CORE

SAMPLE NO.	DEPTH	Zinc Zn %	Copper Cu %	Cadmium Cd %	Gold Au oz/long/ton	Silver Ag	Lead Pb %
67120022	662 - 665'	-0.005	0.010	0.003	-0.01	0.4	-0.001
23	665 - 668'	0.13	0.16	0.004	-0.01	1.6	4.20
24	668 - 671'	0.19	0.12	0.005	0.01	1.2	3.00
25	671 - 674'	0.13	0.21	0.004	0.01	1.4	2.85
26	674 - 677'	0.19	0.080	0.004	0.01	0.6	2.95
27	677 - 680'	0.32	0.050	0.006	0.02	1.7	0.72
28	680 - 683'	0.23	0.47	0.005	0.01	15.5	1.95
29	683 - 686'	0.12	0.21	0.004	0.01	2.6	0.80
30	686 - 689'	0.070	0.32	0.004	0.02	11.4	0.76
31	689 - 692'	0.15	0.30	0.006	0.01	31.4	0.92
32	692 - 695'	0.050	0.67	0.004	0.01	6.7	0.66
67120033	695 - 698'	0.010	0.015	0.003	0.01	-0.1	-0.001

SUMMARY

15 Ft (665 - 680')

Lead 2.744%
Zinc 0.192%
Silver 1.3 oz/long ton

15 Ft (680 - 695')

Lead 1.018%
Zinc 0.124%
Silver 13.52 oz/long ton

30 Ft (665 - 695')

Lead 1.881%
Zinc 0.158%
Silver 7.41 oz/long ton

D.D.H. 66 - 12.

WOODCUTTERS AREA

SPLIT CORE

SAMPLE NO.	DEPTH	COPPER Cu %	LEAD Pb %	ZINC Zn %	SILVER Ag oz/long ton	CADMIUM Cd %
67120208	570 - 575	0.030	-0.01	0.008	0.13	-0.001
09	575 - 580	0.055	0.18	0.006	0.16	-0.001
10	580 - 585	0.045	0.11	0.008	0.13	-0.001
11	585 - 590	0.025	0.06	0.008	0.23	-0.001
12	590 - 595	0.008	0.02	0.006	0.13	-0.001
13	595 - 600	0.035	0.02	0.010	0.98	-0.001
14	600 - 605	0.12	0.27	0.011	2.29	-0.001
67120215	605 - 610	0.025	0.03	0.008	0.65	-0.001

WOODCUTTERS AREAD.D.H. 66-12SPLIT CORE

<u>Sample No.</u>	<u>Depth</u>	<u>Sulphur</u>	<u>Acid Soluble</u>
		<u>S</u> <u>%</u>	<u>Iron</u> <u>Po %</u>
67120023	665' - 668'	32.6	27.7
24	668' - 671'	38.7	33.6
25	671' - 674'	39.7	34.5
26	674' - 677'	43.9	38.4
27	677' - 680'	45.2	39.5
28	680' - 683'	35.8	30.8
29	683' - 686'	26.2	22.7
30	686' - 689'	29.8	25.3
31	689' - 692'	27.0	23.6
67120032	692' - 695'	25.3	22.2

D.D.H. 67-3

216S 35E -75°E

SPLIT CORE ASSAY

<u>Depth</u>	<u>Sample No.</u>	<u>Batch No.</u>	<u>Anal N</u>
458' - 461'	67120292	67/18	AN835/68
461' - 470'	67120287 - 67120289	67/15	AN352/68
470' - 476'	67120293 - 67120294	67/18	AN835/68

Scrape Core Analyses

162' - 916'	67120255 - 67120282	67/14	AN297/68
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D.D.H. 67-3

WOODCUTTERS AREA

SCRAPE CORE

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Cd	Bi	Ag	Cr.	V	W	Be	Mo	Ga	Ge	As	Sb	Mn	Nb
67120255	162' - 186'	30	60	100	10	15	3	-3	2	1.5	100	300	20	2	3	20	1	-50	-30	120	60
56	186 - 209	30	40	40	7	6	2	-3	2	0.4	70	150	-20	2	4	15	-1	-50	-30	100	-50
57	209 - 232	25	25	50	7	6	2	-3	1	0.4	25	80	20	1	6	8	-1	-50	-30	80	-50
58	232 - 256	50	80	70	8	6	3	-3	5	2	20	20	25	3	5	7	-1	50	30	150	-50
59	256 - 279	60	150	120	20	30	5	-3	7	5	70	250	25	1	15	15	1	50	40	300	60
67120260	279 - 302	15	40	70	8	4	3	-3	1	0.4	15	20	25	2	4	4	1	-50	-30	150	-50
61	302 - 324	15	50	40	7	3	1	-3	2	0.3	12	12	20	1	3	3	-1	50	-30	200	-50
62	324 - 347	30	300	80	5	5	6	-3	3	1.5	15	15	20	2	5	8	1	100	60	200	-50
63	347 - 375	25	150	200	8	5	2	-3	2	1.0	12	12	20	2	4	-4	-1	-50	-30	300	-50
64	375 - 395	40	150	70	10	6	5	-3	1	1.2	15	20	25	1	4	6	-1	-50	-30	300	-50
65	395 - 418	20	50	40	7	4	4	-3	-1	0.3	10	10	20	-1	2	2	-1	-50	-30	300	-50
66	418 - 440	50	300	150	8	3	6	-3	3	2	15	12	20	2	3	3	-1	-50	-30	400	-50
67	440 - 465	30	3000	2000	4	2	8	15	3	10	8	10	20	1	2	3	-1	100	-30	500	-50
68	465 - 488	50	5000	2500	12	25	8	40	3	25	50	50	25	2	6	15	1	50	-30	400	-50
69	488 - 512	30	200	100	5	7	2	-3	1	1.5	20	15	20	2	3	7	-1	50	-30	500	-50
67120270	512 - 535	50	300	250	10	8	3	-3	1	2	20	20	25	1	7	8	-1	50	-30	250	-50
71	535 - 559	20	50	100	5	6	2	-3	1	1.2	15	15	-20	1	4	7	-1	-50	-30	150	-50
72	582 - 582	800	120	120	4	6	3	-3	3	60	15	12	-20	1	3	5	-1	80	400	300	-50
73	582 - 606	25	50	80	6	6	3	-3	1	1.5	20	20	20	3	3	6	-1	-50	-30	120	-50
74	606 - 629	20	50	40	7	4	1	-3	1	1.2	20	20	25	2	3	4	-1	-50	-30	150	-50
75	629 - 651	30	40	30	10	4	2	-3	-1	1.0	20	12	25	2	2	3	-1	-50	-30	300	-50
67120276	651 - 676	50	70	40	10	3	2	-3	4	1.2	15	12	25	1	2	2	-1	50	-30	700	-50

D.D.H. 67-3

WOODCUTTERS AREA

SCRAPE CORE

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Cd	Bi	Ag	Cr	V	W	Be	Mo	Ga	Ge	As	Sb	Mn	Nb
67120277	676 - 698	12	15	25	3	2	3	-3	-1	0.3	7	10	20	2	1	1	-1	-50	-30	120	-50
78	698 - 735	100	25	30	10	3	3	-3	2	1.0	8	8	25	-1	1	2	-1	120	-30	1000	-50
79	735 - 770	12	70	30	3	3	4	-3	2	1.0	15	12	20	2	3	6	-1	50	-30	500	-50
80	770 - 802	40	200	50	3	4	3	-3	1	0.8	20	12	20	1	3	6	-1	50	-30	600	-50
81	802 - 855	20	150	25	8	3	2	-3	2	4.0	15	15	25	2	3	5	-1	-50	-30	300	-50
67120282	855 - 916	20	15	30	4	5	5	-3	1	1.0	40	70	20	2	6	10	-1	-50	-30	80	-50

Elements not detected: Au, In, Pd, Os, Ir, Pt, Rh, Ru, Ta.

Results in p.p.m.

D.D.H. 67-3

WOODCUTTERS AREASPLIT CORE

Sample No.	Depth	Copper Cu. %	Lead Pb %	Zinc Zn %	Silver Ag OZ1/long ton	Cadmium Cd %	Acid Soluble Iron Fe %	Sulphur S %
67120292	458' - 461'	0.003	0.030	0.021	0.2	0.0005	14.7	17.7
67120287	461' - 464'	0.010	0.57	0.56	0.7	0.005	8.7	10.4
67120289	464' - 467'	0.014	9.20	20.80	6.7	0.150	8.6	21.2
67120288	467' - 470'	0.018	4.80	6.50	4.1	0.05	2.5	6.5
67120293	470' - 473'	0.002	0.065	0.27	0.1	0.002	1.9	1.55
67120294	473' - 476'	0.002	0.0018	0.023	0.1	0.0005	1.5	1.05

D.D.H. 67 - 4.

200S 36E -65°E

SPLIT CORE ASSAY

DEPTH

SAMPLE NO.

BATCH NO.

ANDEL NO.

606'10" - 628'2"

67120218 - 67120224

67/12

AN36/68

SCRAPE CORE ANALYSES

DEPTH

SAMPLE NO.

BATCH NO.

ANDEL NO.

108' - 716'

67120225 - 67120250

67/13

AN68/68

126

D.D.H. 67 - 4.

WOODCUTTERS AREA

SCRAPE CORE

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Bi	Ag	Cr	V	W	Mo	Be	Ca	Ge	As	Mn
67120225	108'-125'	70	40	60	10	100	2	-1	0.3	30	400	20	4	4	15	1	-50	100
26	125'-151'	70	40	120	15	100	3	2	1.0	50	400	20	4	4	15	1	-50	150
27	151'-175'	70	40	200	20	120	3	2	2	50	400	20	4	5	15	1	-50	400
28	175'-199'	70	20	20	10	120	2	2	4	80	400	-20	3	4	10	-1	-50	300
29	199'-220'	80	80	150	8	100	3	1	0.8	150	300	20	5	5	10	1	-50	300
67120230	220'-244'	80	60	120	15	60	5	2	1.5	20	25	25	6	4	10	1	-50	300
31	244'-267'	80	60	120	7	25	4	1	1.2	25	50	20	6	5	10	1	-50	300
32	267'-289'	80	60	100	10	40	3	-1	0.6	10	20	25	6	4	10	1	-50	200
33	289'-312'	70	30	120	3	20	2	1	1.2	10	25	25	7	4	10	-1	-50	200
34	312'-336'	120	60	40	8	50	3	-1	1.2	50	300	25	12	5	10	-1	-50	300
35	336'-358'	150	80	120	8	50	5	2	1.2	15	150	25	15	4	10	1	-50	300
36	358'-380'	80	25	60	6	20	3	-1	0.8	15	80	25	10	4	5	-1	-50	150
37	380'-410'	80	100	200	15	100	4	2	0.6	200	500	-20	50	4	15	1	-50	150
38	410'-444'	80	200	250	10	100	3	2	5	150	300	-20	6	4	15	1	-50	150
39	444'-466'	80	100	80	8	30	5	1	2	15	50	25	15	3	10	-1	-50	300
67120240	466'-488'	80	30	40	8	20	5	2	1.0	20	150	25	10	1	40	1	-50	50
41	488'-511'	80	30	20	25	40	5	2	2	20	100	25	10	1	10	1	-50	80
42	511'-534'	80	30	20	10	20	4	1	3	20	200	30	8	2	10	-1	-50	50
43	534'-558'	150	100	100	25	150	4	1	2	20	100	60	12	2	10	-1	200	50
44	558'-581'	80	50	40	6	15	4	2	2	20	150	25	6	4	10	-1	-50	100

WOODCUTTERS AREA

D.D.H. G7-4

SCRAPE CORE

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Bi	Ag	Cr	V	W	Mo	Be	Ga	Ge	As	Mn
67120245	581'-604'	50	30	30	8	30	4	-1	1.5	30	100	50	8	3	10	1	-50	100
46	604'-628'	150	60	200	50	120	10	2	6	200	200	60	8	5	30	1	150	1000
47	628'-648'	100	80	80	80	150	10	2	6	200	400	50	8	5	30	1	-50	800
48	648'-672'	250	40	50	6	10	20	3	6	20	100	20	6	3	15	1	-50	100
49	672'-696'	100	40	120	6	15	6	2	1.5	20	120	25	8	5	8	-1	-50	100
67120250	696'-716'	120	60	150	10	80	6	1	2	20	120	25	25	5	10	-1	60	300

Elements not detected: Cd, Au, In, Pd, Sb, Pt, Os, Ir, Rh, Ru, Nb, Ta.

Results in p.p.m.

D.D.H. 67 - 4.

WOODCUTTERS AREA

SPLIT CORE

SAMPLE NO.	DEPTH	Copper Cu %	Lead Pb %	Zinc Zn %	Silver Ag ozs/long ton	Cadmium Cd %	Iron Fe %	Sulphur S %
67120218	606'10" - 609'10"	-0.01	0.01	-0.01	0.01	0.0005	2.15	0.35
67120219	609'10" - 611'10"	-0.01	0.01	-0.01	0.01	0.0003	1.32	0.58
67120220	611'10" - 614'10"	0.04	0.01	0.01	0.26	0.0005	9.40	5.85
67120221	614'10" - 617'10"	0.02	0.01	-0.01	0.01	0.0005	7.35	4.10
67120222	617'10" - 621'10"	0.02	0.01	0.01	0.01	0.0005	6.30	4.75
67120223	621'10" - 625'2"	-0.01	0.01	-0.01	0.01	0.0005	4.30	2.90
67120224	625'2" - 628'2"	-0.01	0.01	0.02	0.01	0.0005	1.20	0.37

D.D.H. 67 - 8
.....

2045 35E ~65°E

SPLIT CORE ASSAY

DEPTH SAMPLE NO.
.....
738 - 761' 67120359 - 365

BATCH NO.
.....
67/21

AMDEL NO.
AN 1348/68

DEPTH SAMPLE NO.
.....
38 - 790' 67120366 - 389

BATCH NO.
.....
67/20

SCRAPE CORE ANALYSIS

AMDEL NO.
AN 1347/68

D.D.H. 67 - 8WOODCUTTERS AREASCRAPE CORE

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Cd	Bi	Ag	Cr	V	W	Mo	Be	Ga	Ge	As	Sb	Mn
67120366	38-86	200	100	80	50	100	5	3	3	1.0	300	800	-20	15	3	50	1	100	-30	500
67	86-144	250	100	300	80	300	8	3	3	1.5	500	800	20	15	3	50	1	100	-30	500
68	144-170	250	100	1000	30	300	8	-3	3	1.5	400	800	20	3	3	80	1	-50	-30	300
69	170-192	400	150	1000	30	250	6	-3	3	1.5	300	100	50	10	-1	30	2	100	-30	300
70	192-214	250	150	250	30	150	8	-3	5	1.5	300	100	150	10	1	50	2	-50	-30	500
71	214-229	80	30	100	5	10	3	-3	2	0.4	50	10	-20	3	3	5	1	50	-30	500
72	229-252	150	30	100	3	30	1	-3	3	0.4	100	100	20	20	3	5	1	-50	-30	200
73	252-275	120	150	400	30	150	4	-3	8	1.5	200	200	20	30	3	30	1	150	-30	500
74	275-301	200	150	400	60	150	4	-3	6	1.0	300	600	-20	50	5	30	1	100	-30	100
75	301-325	200	100	120	30	100	5	-3	5	1.5	300	200	-20	50	3	20	1	50	-30	300
76	325-348	250	100	100	30	100	5	-3	5	1.5	300	300	30	80	1	20	1	-50	-30	300
77	348-422	500	150	250	30	100	5	-3	5	1.5	300	400	50	80	5	30	1	50	-30	50
78	422-455	200	100	200	30	100	5	-3	2	1.5	200	150	50	50	3	30	1	-50	-30	200
79	455-486	200	100	120	8	60	5	-3	2	3.	300	300	50	30	-1	20	1	-50	-30	200
80	486-519	100	80	100	8	30	5	-3	-1	1.0	20	20	100	15	3	10	-1	-50	-30	30
81	519-555	100	120	100	6	100	5	-3	-1	1.0	50	20	50	10	-1	10	-1	-50	-30	30
82	555-584	150	200	300	30	100	5	-3	2	3.	400	300	50	10	-1	30	-1	-50	-30	200
83	584-616	120	400	250	5	20	5	-3	1	1.5	100	200	30	15	-1	10	-1	150	-30	200
84	616-647	150	300	500	6	25	5	-3	-1	1.5	200	200	30	30	3	10	-1	100	-30	100

D.D.H. 67 - 8

WOODCUTTERS AREA

SCRAPE CORE

SAMPLE NO.	DEPTH	Cu	Pb	Zn	Co	Ni	Sn	Cd	Bi	Ag	Cr	V	W	Mo	Be	Ga	Ge	As	Sb	Mn
67120385	647-681	120	1500	1500	15	100	6	-3	1	3.	200	300	30	30	3	10	-1	100	-30	200
6	681-713	120	120	1500	6	25	5	-3	1	3.	300	300	30	20	3	10	-1	150	-30	300
7	713-746	2000	+10,000	+10,000	1,000	1200	600	600	1	100.	100	100	50	10	3	10	1	3,000	-30	500
8	746-781	400	+10,000	1,500	1,000	800	60	10	5	30.	30	30	20	10	-1	10	1	1,500	300	5,000
9	781-790	50	1,500	150	10	50	5	-3	-1	3.	50	30	20	10	-1	5	-1	-50	-30	50

Results in p.p.m. CRUSHED geo Al.

Elements not detected

Au. Pd. In. Pt. Os. Ir. Rh. Ru. Nb. Ta.

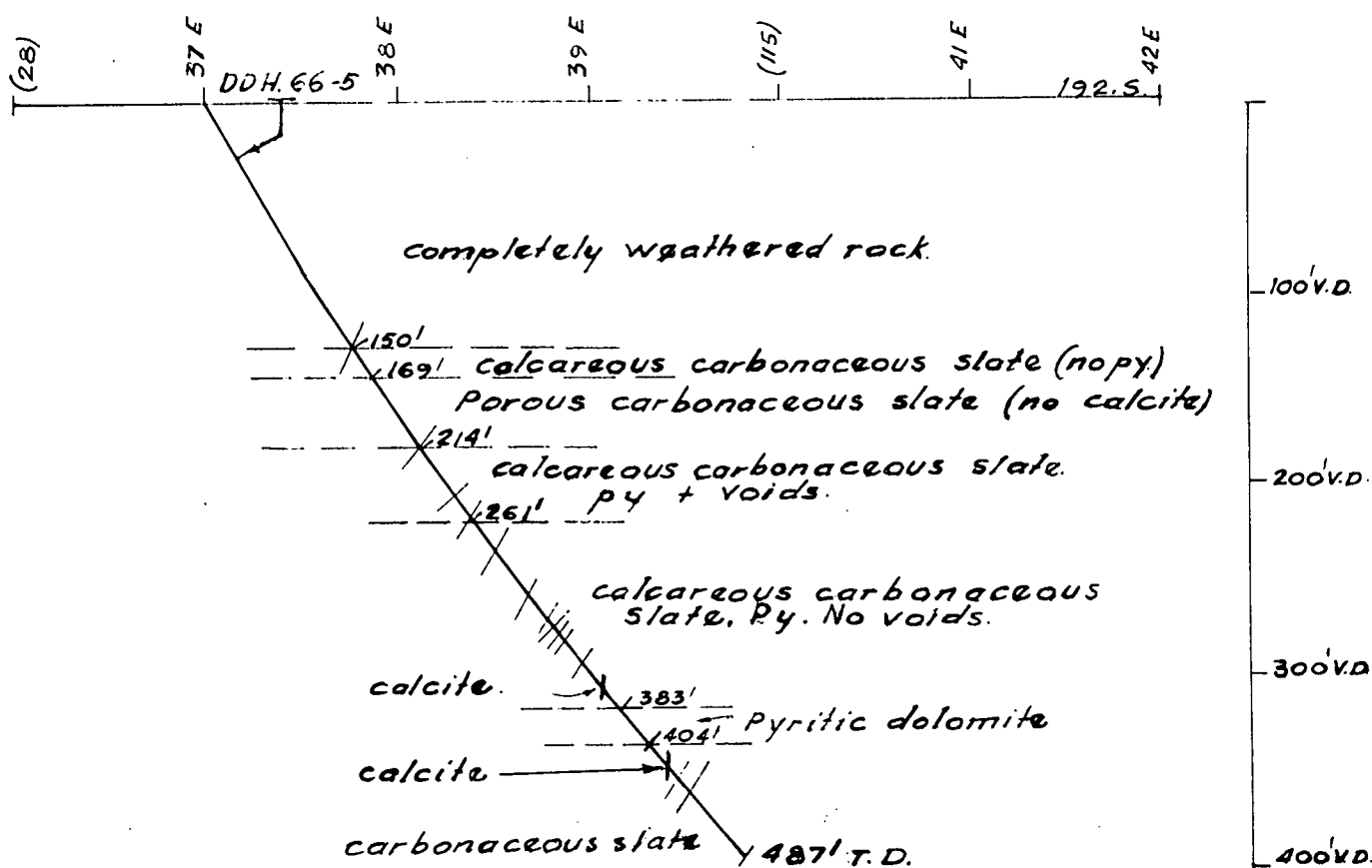
D.D.H. 67 - 8

WOODCUTTERS AREA

SPLIT CORE

SAMPLE NO	DEPTH	COPPER Cu %	LEAD Pb %	ZINC Zn %	SILVER Ag oz/long ton	CADMIUM Cd %	IRON Fe %	SULPHUR S %
67120359	738' - 741'	0.005	0.05	0.015	0.1	0.001	1.7	0.64
67120360	741' - 744'	0.50	23.8	19.7	5.0	0.16	4.9	18.8
67120361	744' - 747'	1.18	22.6	12.8	6.3	0.11	6.25	17.7
67120362	747' - 750'	0.29	33.2	2.5	5.0	0.02	3.65	9.8
67120363	750' - 755'	0.015	2.20	0.23	0.8	0.003	7.8	7.9
67120364	755' - 758'	0.015	0.25	0.04	0.4	0.001	3.4	1.65
67120365	758' - 761'	0.005	0.40	0.015	0.3	0.001	2.45	1.25

741' - 750' Av. 27-87% Pb 11.67% Zn 5.43 oz/ton Ag 0.09% Cd 0.66% Cu
 741' - 755' Av. 18.70% Pb 7.58% Zn 3.77 oz/ton Ag 0.06% Cd 0.43% Cu



Golden Dyke Formation
Throughout

DDH. 66-5

Collar 192 S. 37 E. - 60° Grid East.

Tropari Survey

170'	— 57°	086°
250'	— 54°	084°
487'	— 49°	078°

REFERENCE

/ bedding
(28) Pb. ppm.

SECTION 192.S.

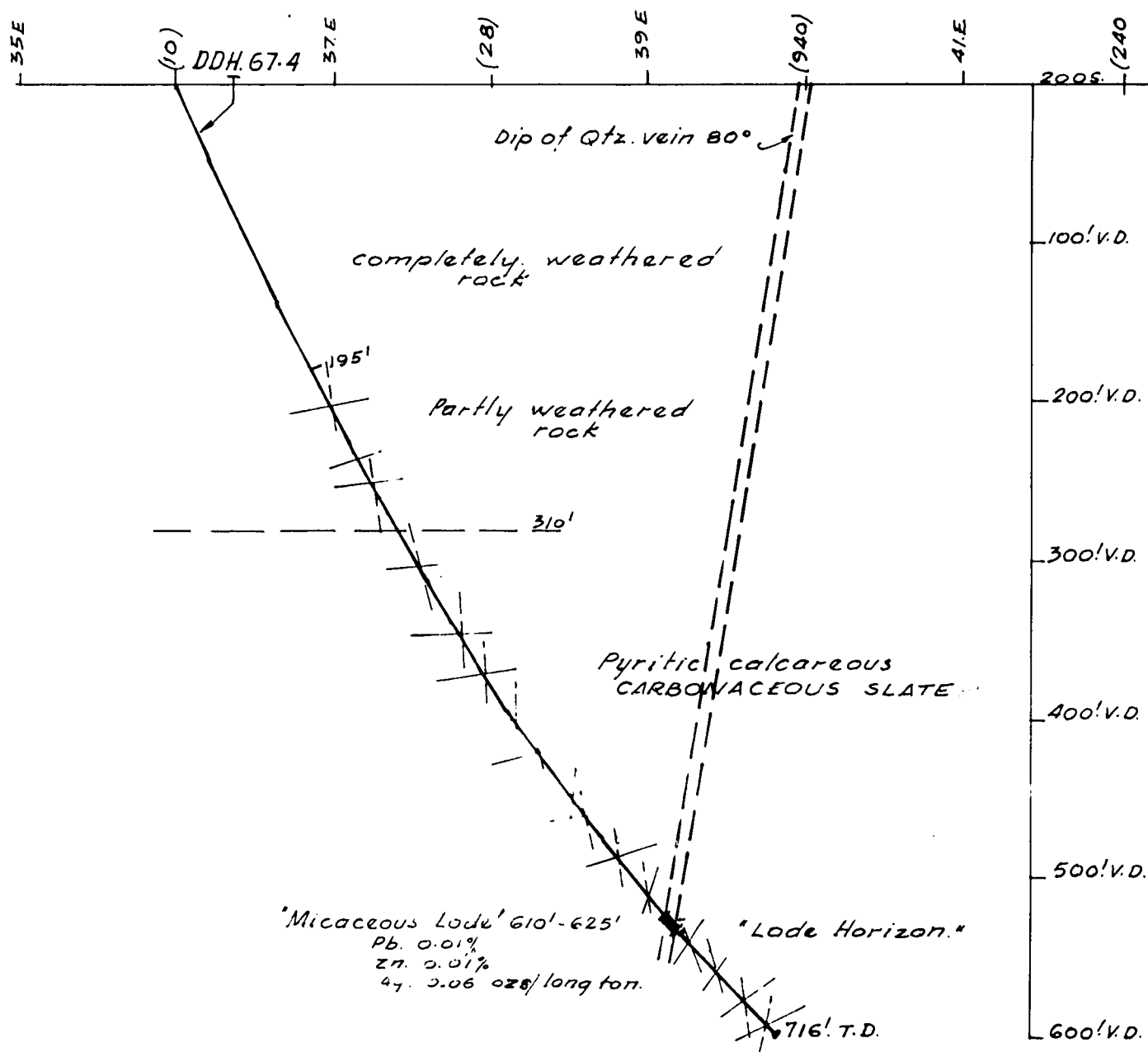
Rum Jungle East Grid

DDH. 66-5

WOODCUTTERS AREA

Anomaly L.5.





Golden Dyke Formation
Throughout.

D.D.H. 67-4

collar 192 S. 37E - 65° Grid East.

Acid Tube Survey

200' — 63°

400' — 58°

600' — 50°

700' — 44°

REFERENCE

cleavage
bedding
(-10) Pb. ppm.

SECTION 200.S.

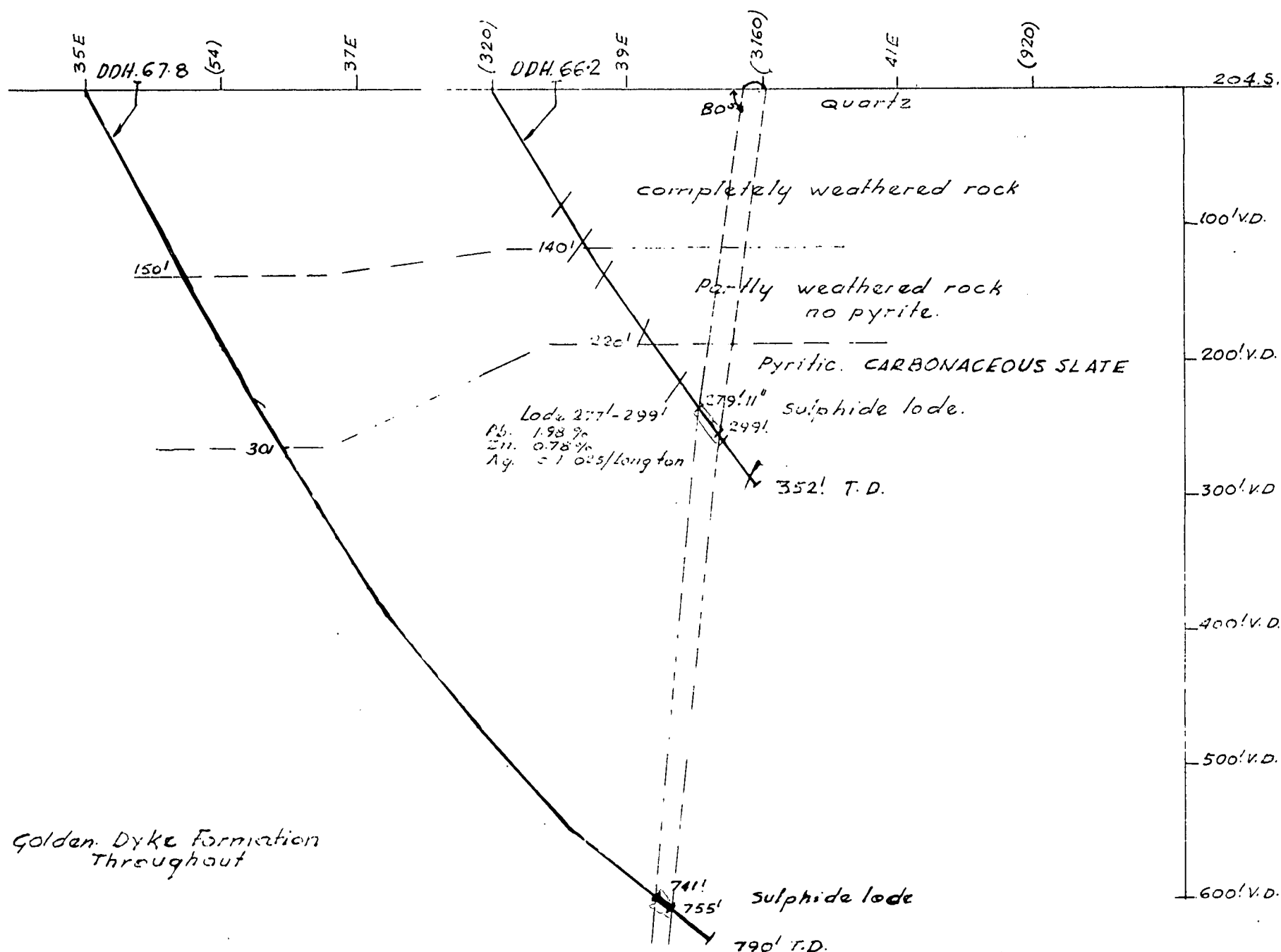
Rum Jungle East Grid

D.D.H. 67-4

WOODCUTTERS AREA

Anomaly L.5.





DDH. 66-2

collar 204.S. 38E. - 60° Grid East
Tropari Survey
245' - 54° 091°
325' - 52° 095°

DDH. 67-8

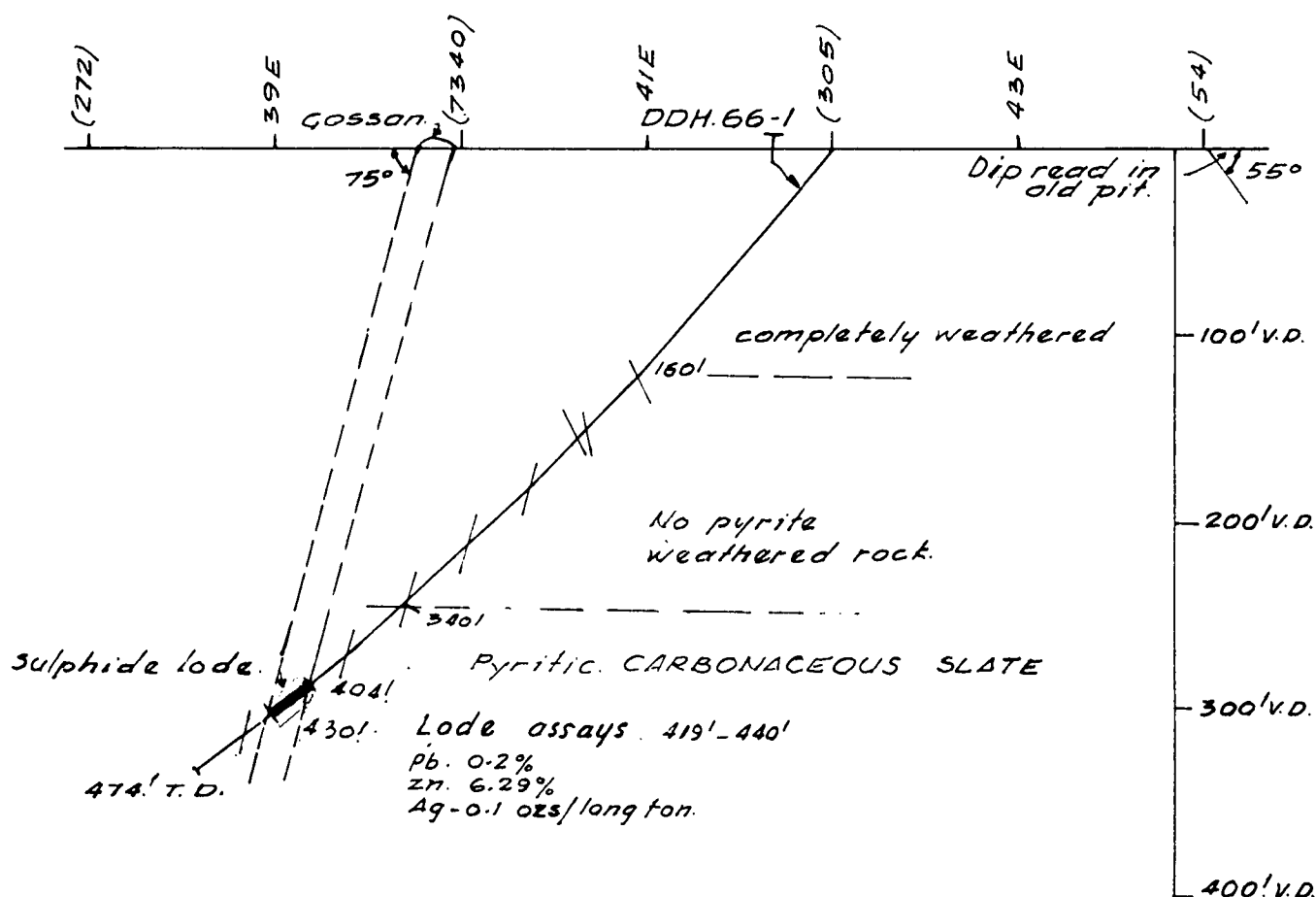
collar 35E. - 204.S. - 65° Grid East
Tropari Survey
400' - 57° 097°
600' - 49° 087°
750' - 40° 097°

REFERENCE

/ cleavage
\ bedding
(54) Pb. p.p.m.

SECTION 204.S.
Rum Jungle East Grid
D.D.H. 66-2 & 67-8
WOODCUTTERS AREA
Anomaly L.5.





golden Dyke formation
Throughout.

D.D.H. 66-1

collar 208 S. 42E - 50° Grid west.

Tropari Survey.

350' - 41° 270°

450' - 37° 271°

REFERENCE

/ bedding.
(54) Pb. ppm.

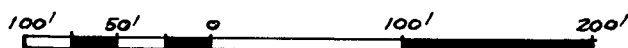
SECTION 208.S.

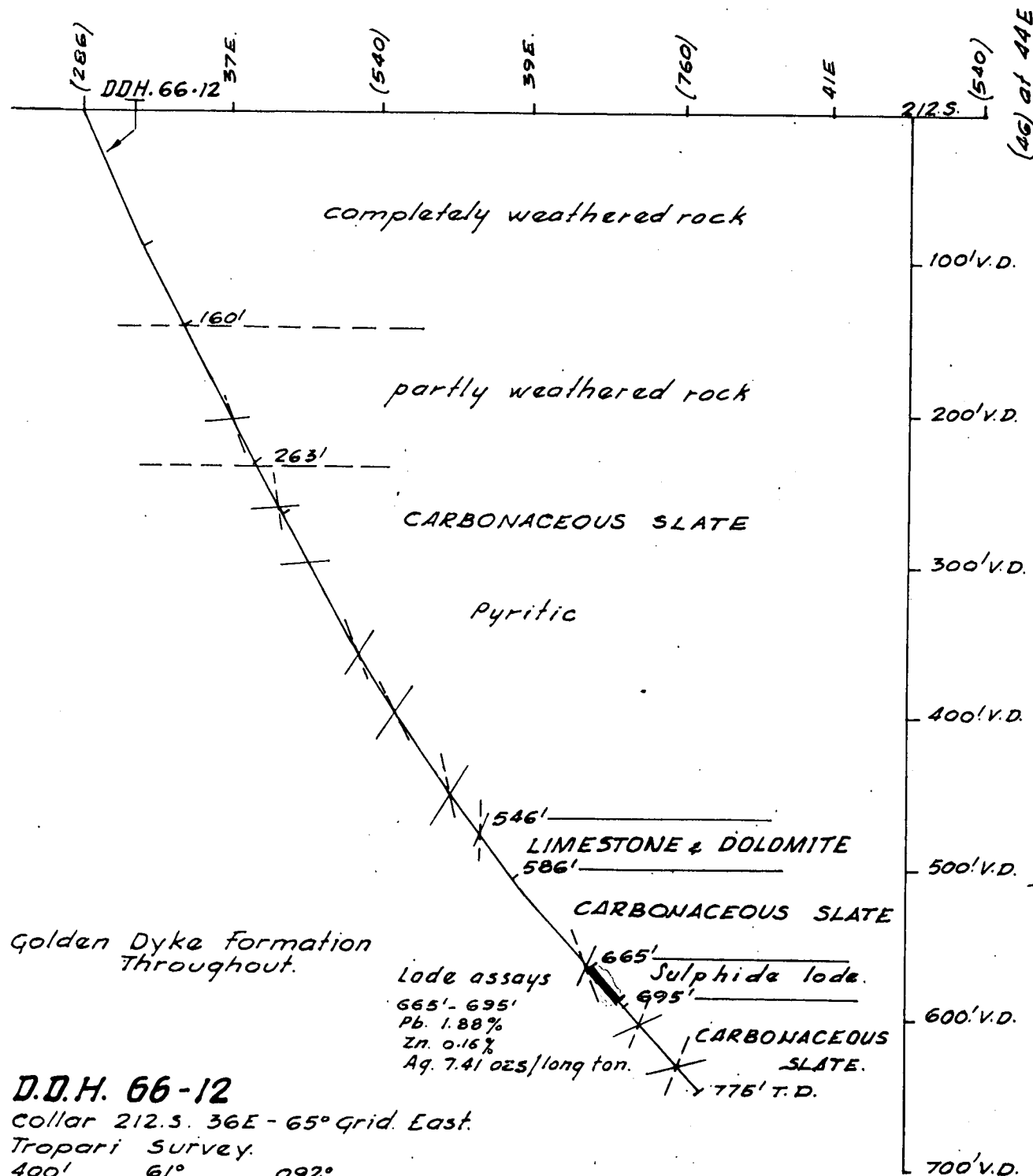
Rum Jungle East Grid

D.D.H. 66-1.

WOODCUTTERS AREA

Anomaly L.5.





D.D.H. 66-12

Collar 212.S. 36E - 65° Grid. East.

Tropari Survey.

400' 61° 092°

516' 56° 096°

700' 47° Acid Tube

REFERENCE

— Cleavage
 / Bedding
 (540) Pb. ppm.

SECTION 212.S.

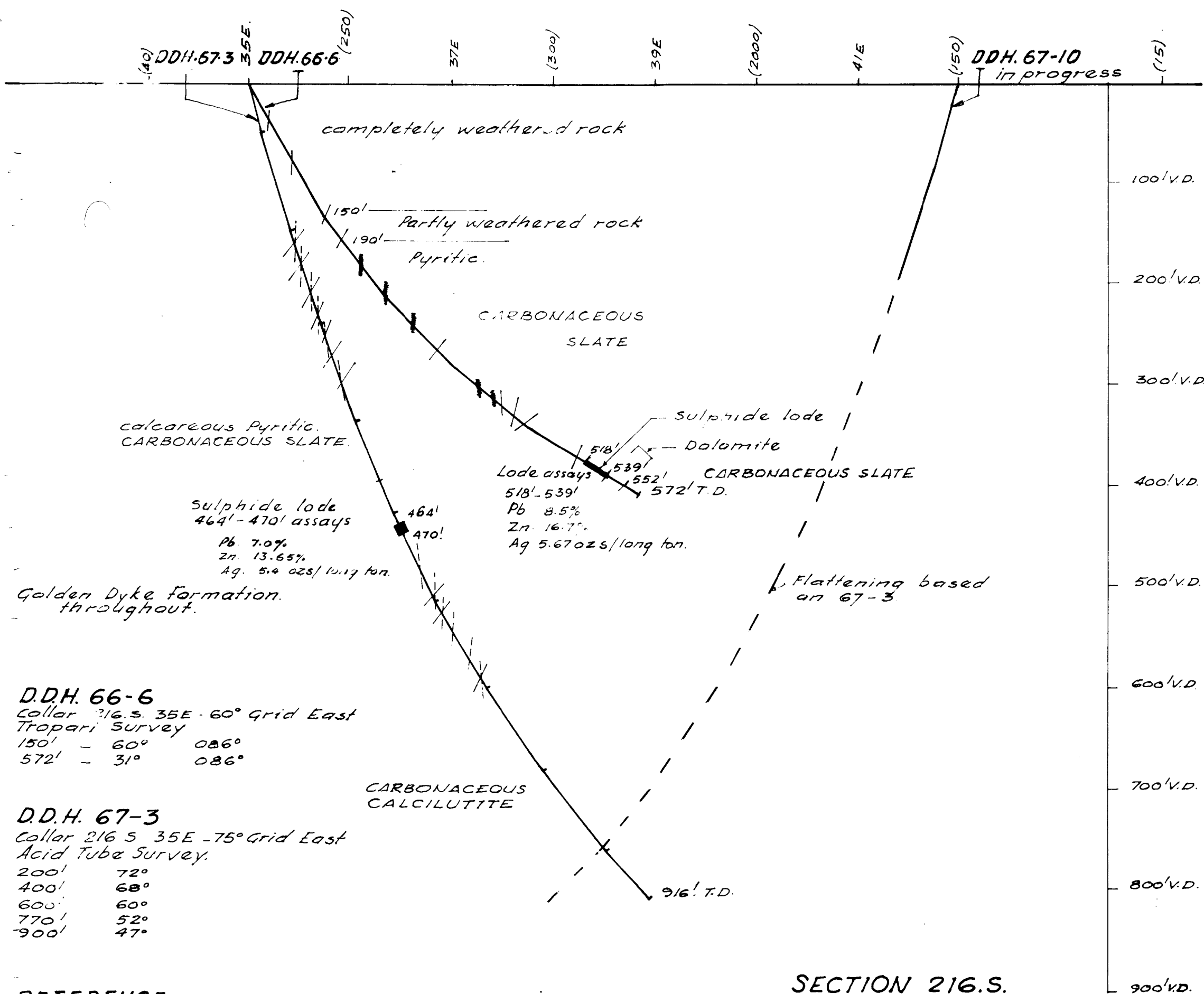
Rum Jungle East Grid

D.D.H. 66-12

WOODCUTTERS AREA

Anomaly L.5





SECTION 216.S.

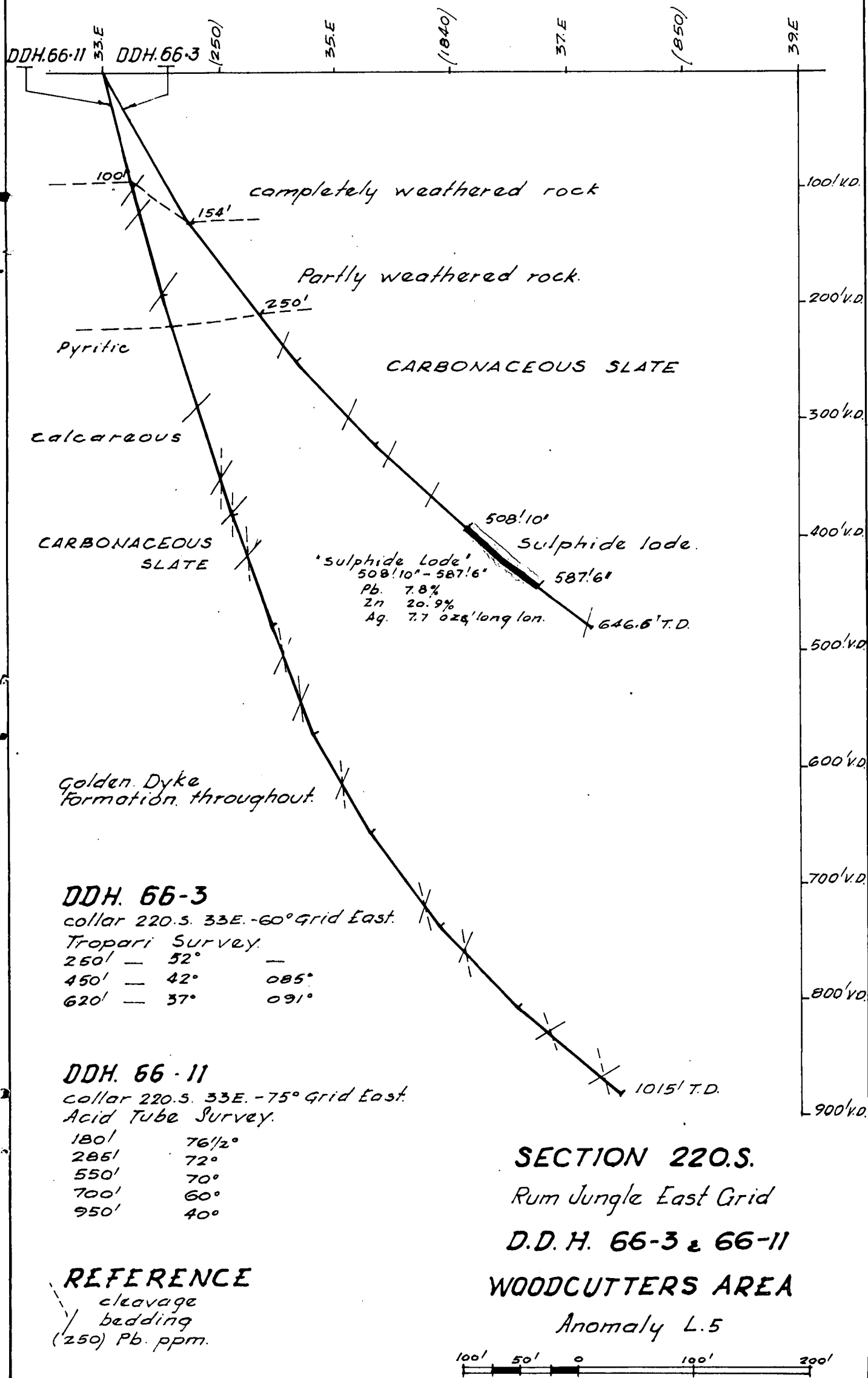
Rum Jungle East Grid

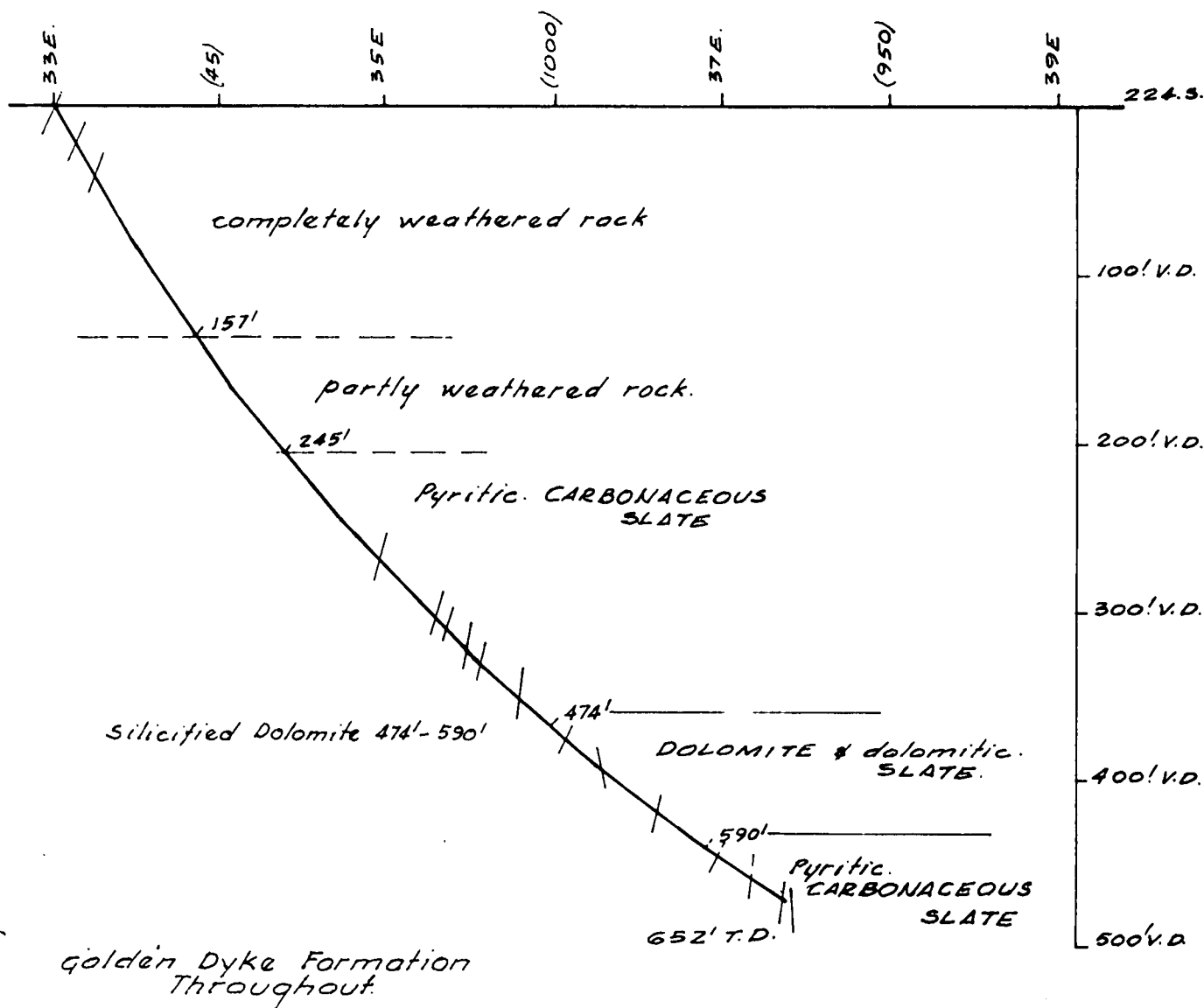
D.D.H. 66-6, 67-3 & 67-10

WOODCUTTERS AREA

Anomaly L.5

100' 50' 0 100' 200'





D.D.H. 66-7

collar 224.S. 33E - 60° Grid East.

Tropari Survey.

215' - 57° - (no result).

400' - 47° 087°

Acid Tube Survey.

652' 33°

REFERENCE

/ bedding
(45) Pb. ppm.

SECTION 224.S.

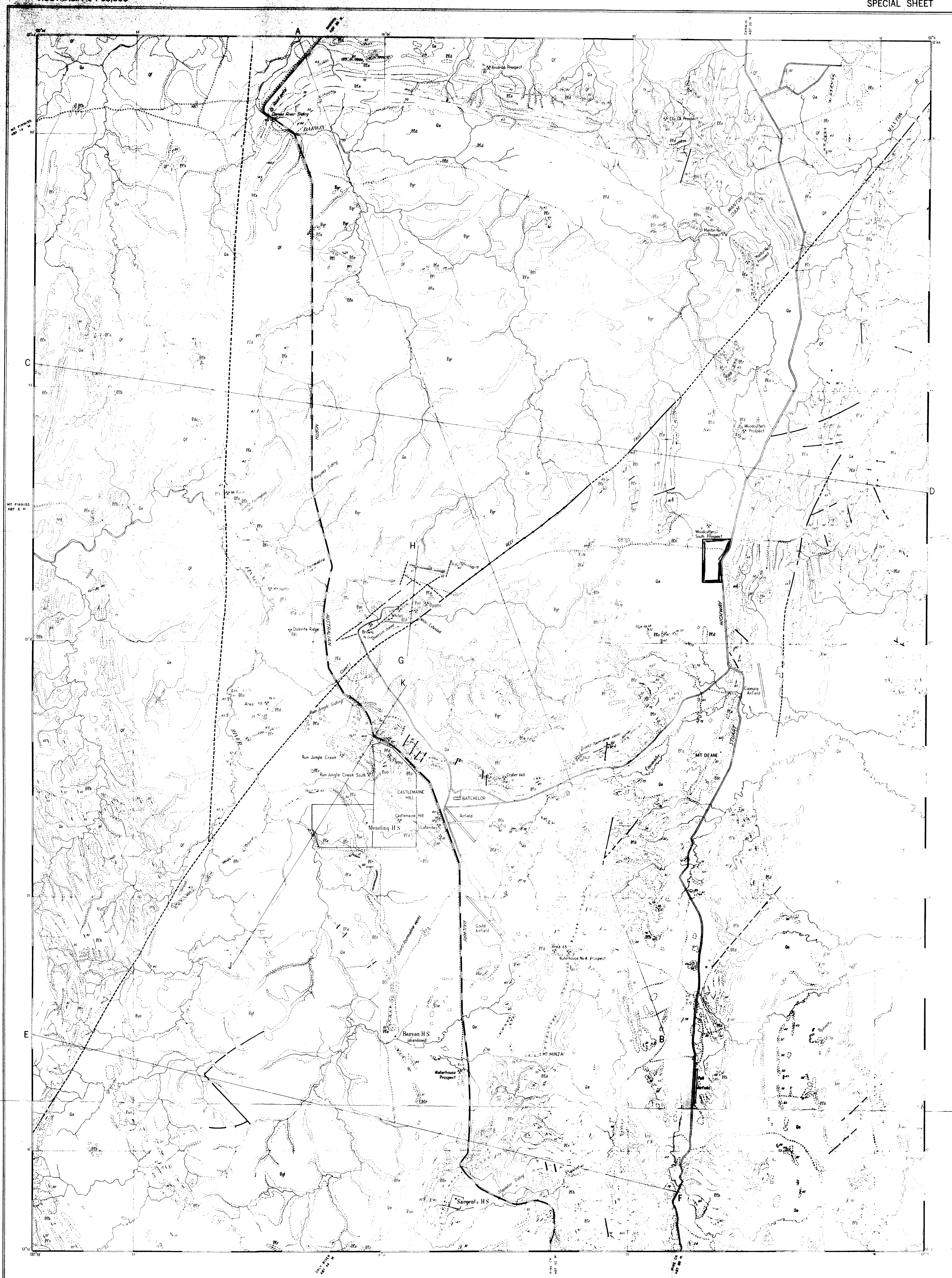
Rum Jungle East Grid

D.D.H - 66-7

WOODCUTTERS AREA

Anomaly L.5





Reference

CAINOZOIC

QUATERNARY

- Qa Soil and alluvium
Qf Ferruginous cemented detritus

UPPER PROTEROZOIC

- Tomer Group
Bulimba Sandstone
Depot Creek Sandstone Member
Pink quartz sandstone, ripple-marked in places with lenses of hematite-rich calcarenite breccia and lenses of quartz pebble conglomerate

LOWER PROTEROZOIC

ADICONDIA SYSTEM

- Rum Jungle Granite
Bulimba granite

- Waterhouse Granite
Purpuritic granite, and adamellite

- Bulimba intrusives
Basic intrusives

- Finniss River Group
Netherburn Formation
Quartz greywacke, greywacke, quartz pebble conglomerate, siltstone
Quartz pebble conglomerate

- Burrell Creek Formation
Siltstone, greywacke siltstone, greywacke, quartz greywacke

- Goodparia Group
Golden Dye Formation
Quartz siltstone and carbonaceous siltstone, in places pyritic, thin bedded siltstone, marl and dolomite, hematite-rich greywacke
Siltified dolomitic slump breccia
Pyritic, carbonaceous, dolomitic marl, in places slumped and brecciated, and containing chert lenses and nodules
Masson Formation
Auriferous Gneiss
Quartz greywacke, quartz sandstone, pyritic and siltified in places, quartz, carbonaceous siltstone, siltstone
Bathurst Group
Coonamble Dolomite
Siltified and metamorphosed dolomite, in places containing oolitic tubulars, calcarenite, siltstone, tremolite schist
Crater Formation
Quartz greywacke, greywacke, argillite, fine and pebble conglomerate, siltstone
Pyritic, carbonaceous, dolomitic marl, in places slumped and brecciated, and containing chert nodules and veins
Quartz pebble conglomerate
Celia Dolomite
Argillite, dolomite, in places siltified and metamorphosed, siltified dolomitic breccia, tremolite schist
Siltified dolomite breccia
Beestons Formation
Argillite, greywacke, siltstone, conglomerate, argillite conglomerate, white friable quartz sandstone

Geological boundaries

Established boundary, position approximate

Strike and dip symbols

Inclined

Inclined showing prevailing dip

Trend lines

Vertical

Folds

Established synclinal trough position accurate

Established anticlinal crest position approximate

Established synclinal trough concave

Established anticlinal crest concave

Plunge of syncline

Plunge of anticline

Overturned syncline

Faults, etc.

Established fault position accurate

Established fault position approximate

Established fault concealed

Probable fault - concealed

Quartz vein

Homestead

Railway

Road

Quarry

Mine or prospect

Copper

Cobalt

Lead

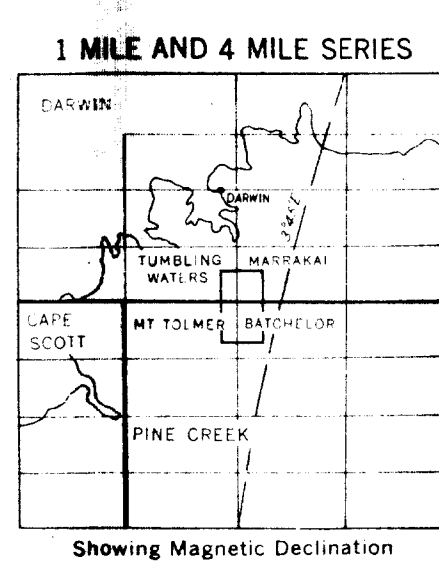
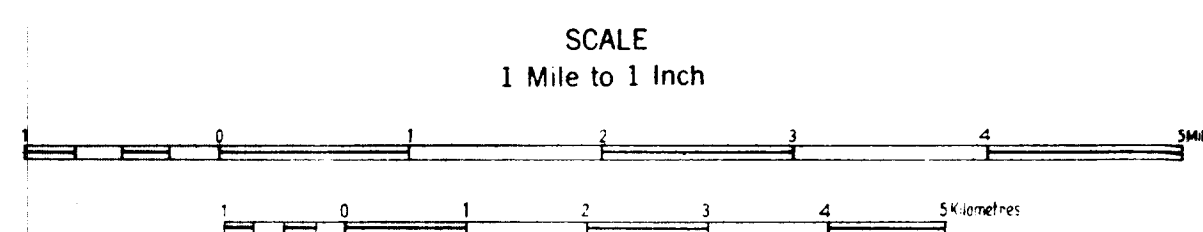
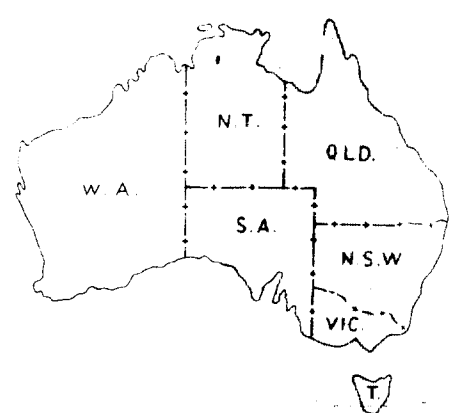
Thorium

Uranium

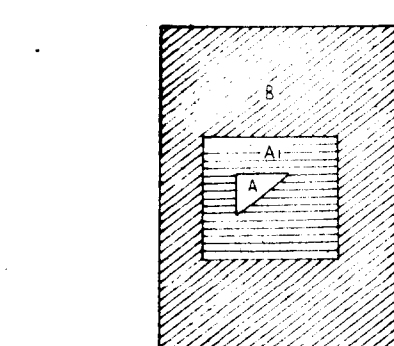
Fossil locality

Woodcutters L.S. Area

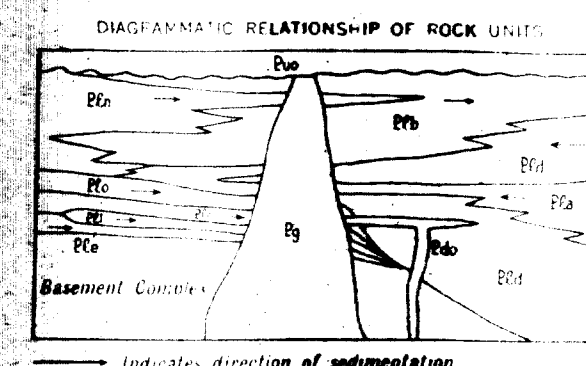
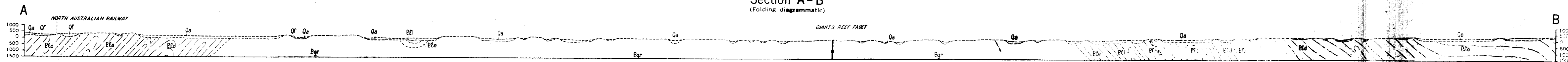
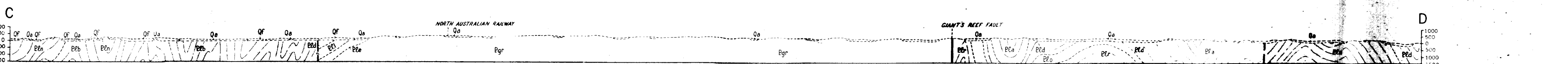
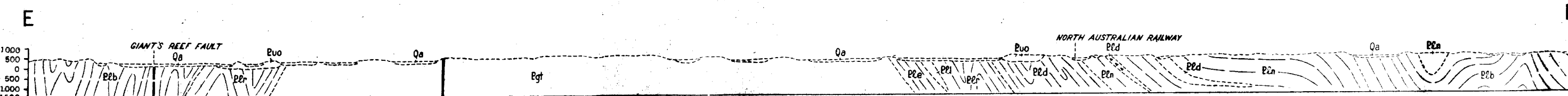
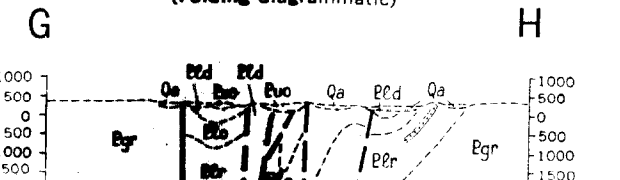
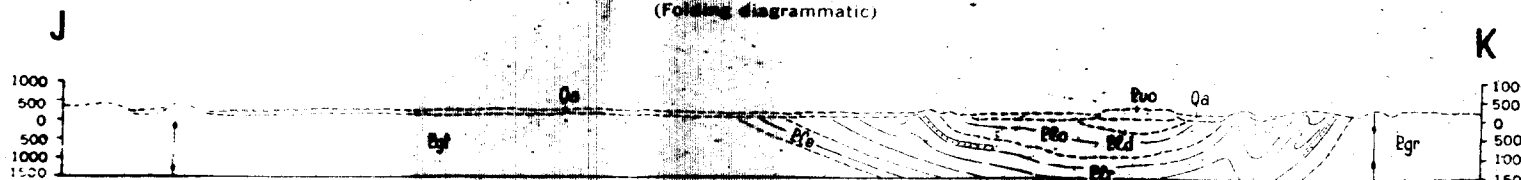
Compiled and published by the Bureau of Mineral Resources, Geology and Geophysics, Department of National Development. Topographic base compiled by the Division of National Mapping, Department of National Development. Aerial photography by the Royal Australian Air Force; complete coverage at 1:50,000 scale. Transverse Mercator Projection.

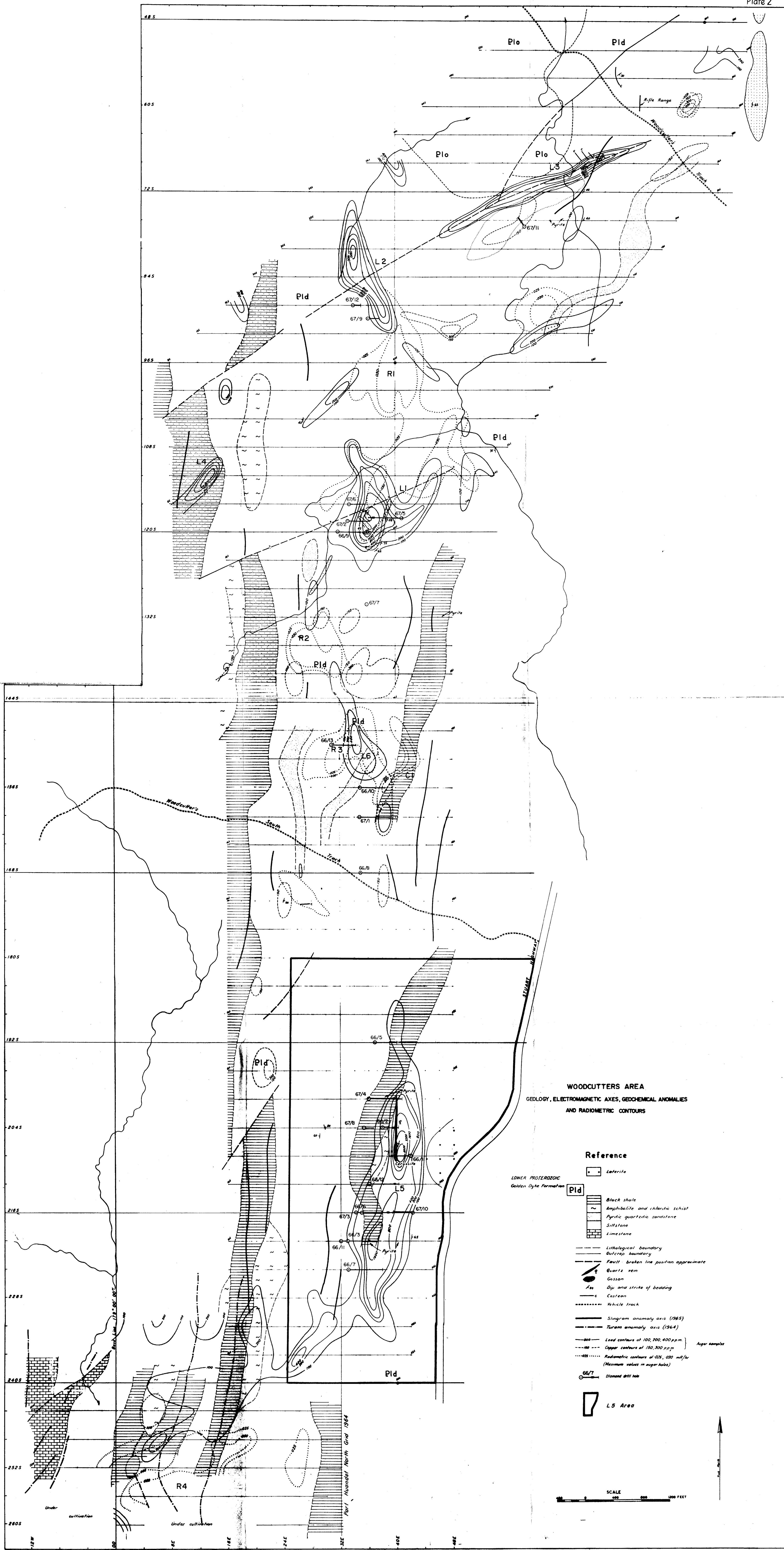


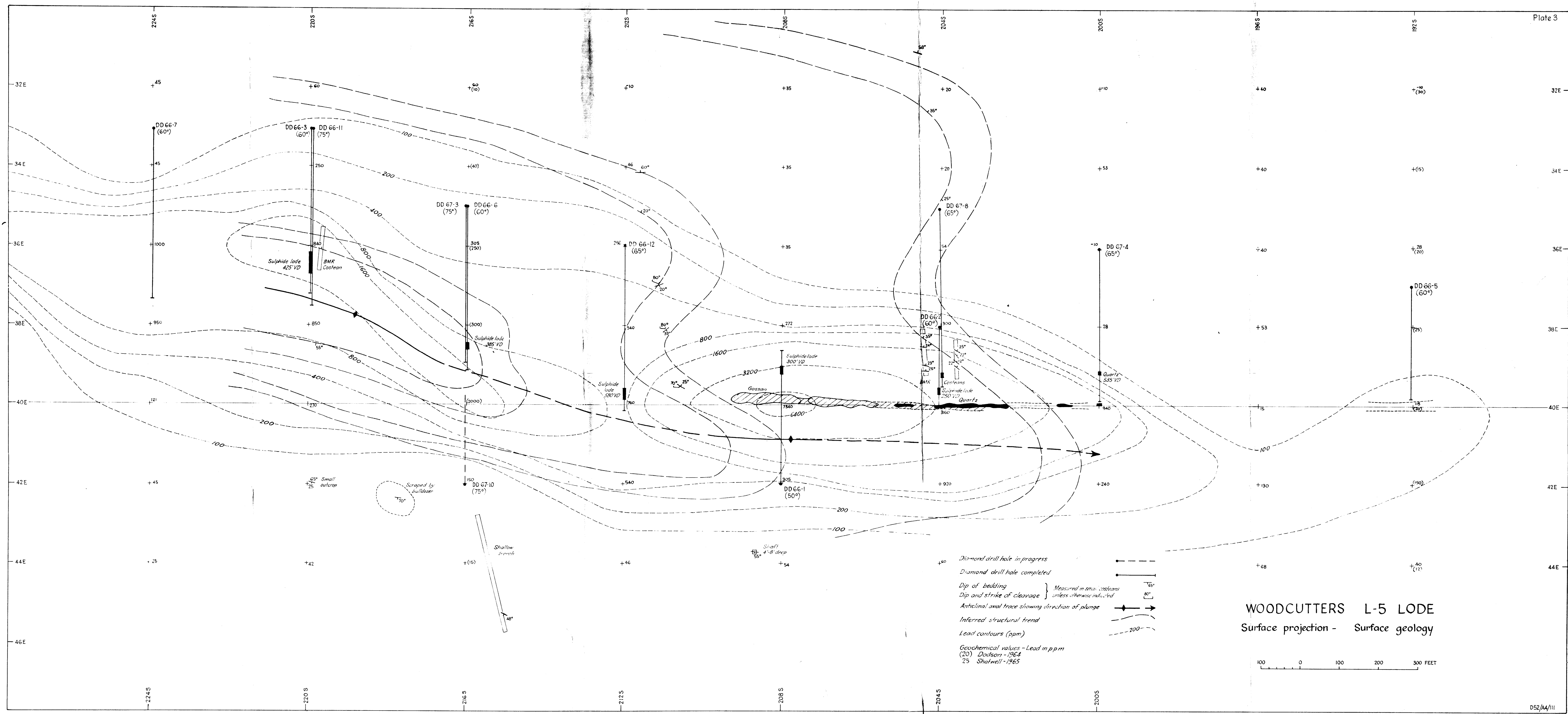
Geology to 1951 by E. J. Malone, B. P. Walpole, D. N. Wain, S. Hazen, H. Davies with some data by Territorial Enterprises Pty. Ltd., P. H. Dodd, F. J. Frankel, J. J. Brown, R. Brown. Drawn by P. H. Brown.



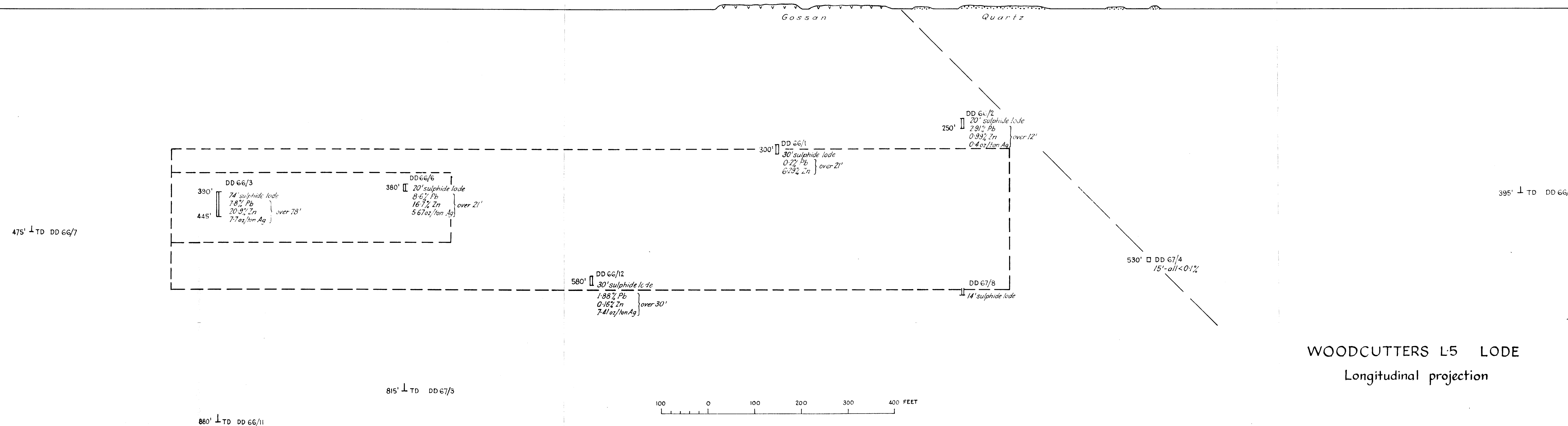
GEOLOGICAL RELIABILITY DIAGRAM
A Detailed surface and subsurface mapping
As Outcrop mapping at 1:100,000 scale
As Outcrop mapping at 1:100,000 scale
As Outcrop mapping at 1:100,000 scale

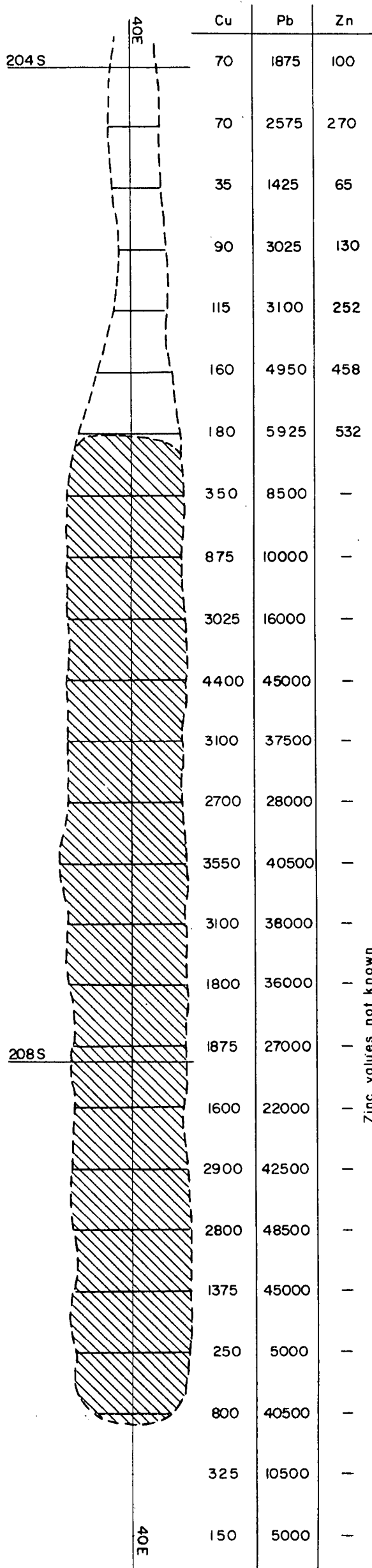
Section A-B
(Folding diagrammatic)Section C-D
(Folding diagrammatic)Section E-F
(Folding diagrammatic)Section G-H
(Folding diagrammatic)Section J-K
(Folding diagrammatic)





224 S 220 S 216 S 212 S 208 S 204 S 200 S 196 S 192 S





GOSSAN SAMPLING
WOODCUTTER'S PROSPECT
RUM JUNGLE EAST

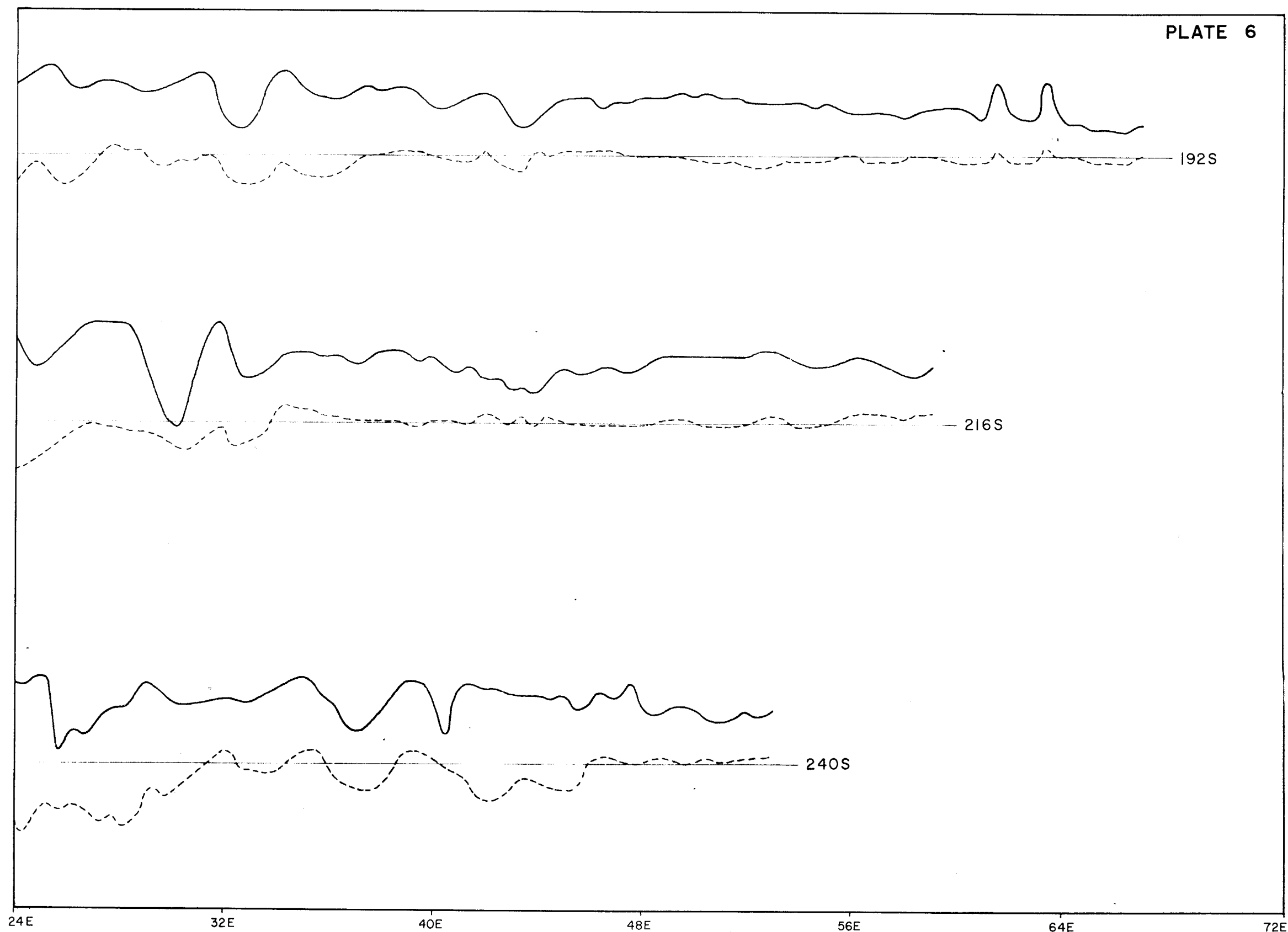
SCALE 1:600

LEGEND

-  Cerussite-bearing Gossan
 Quartz Veins
 Boundary Line

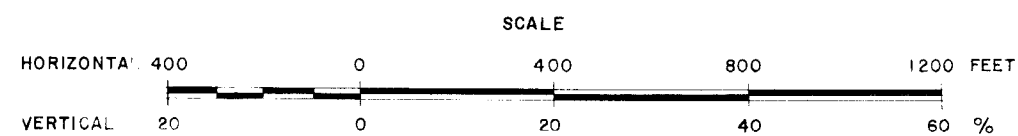
Results in p.p.m.

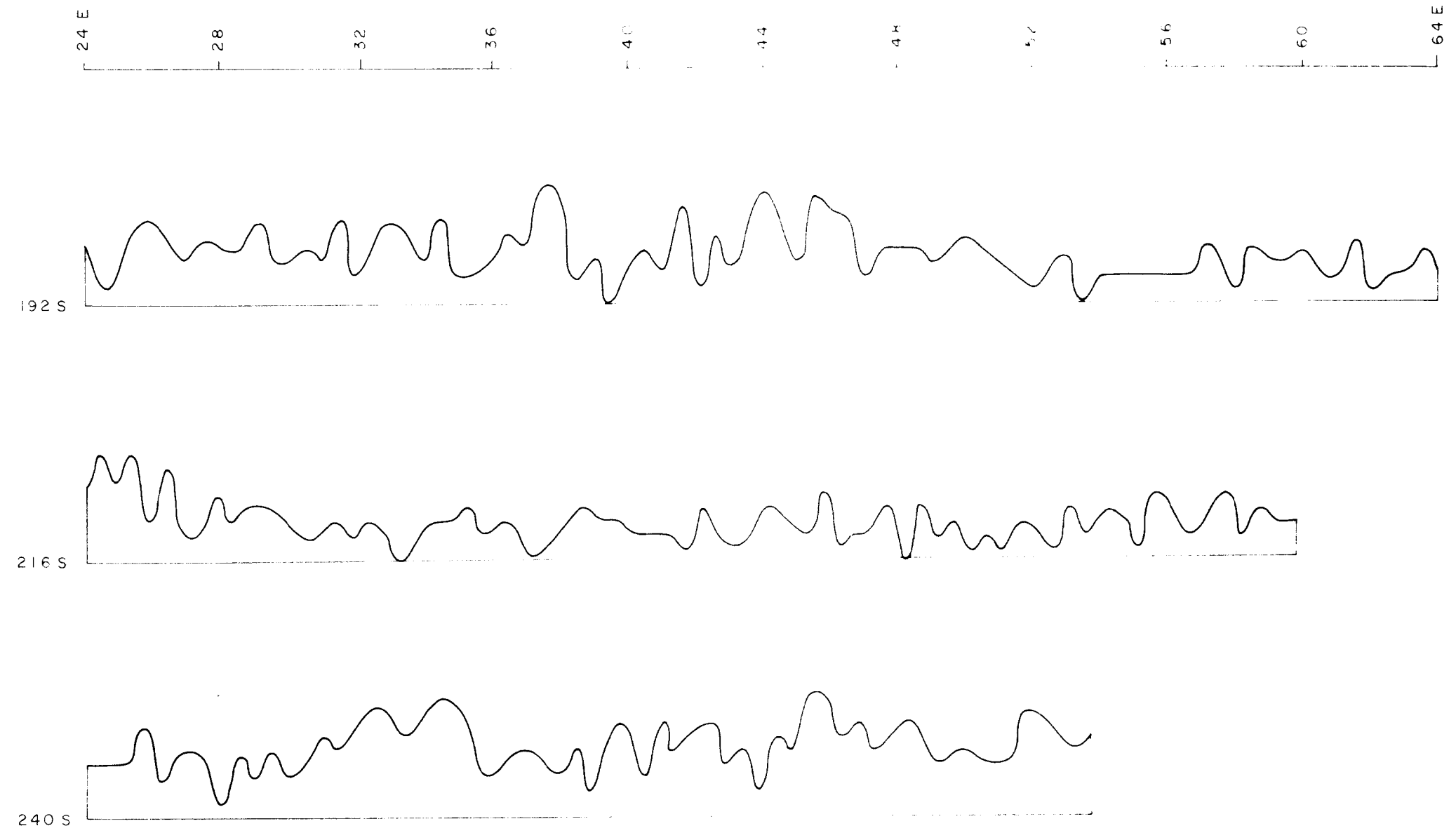
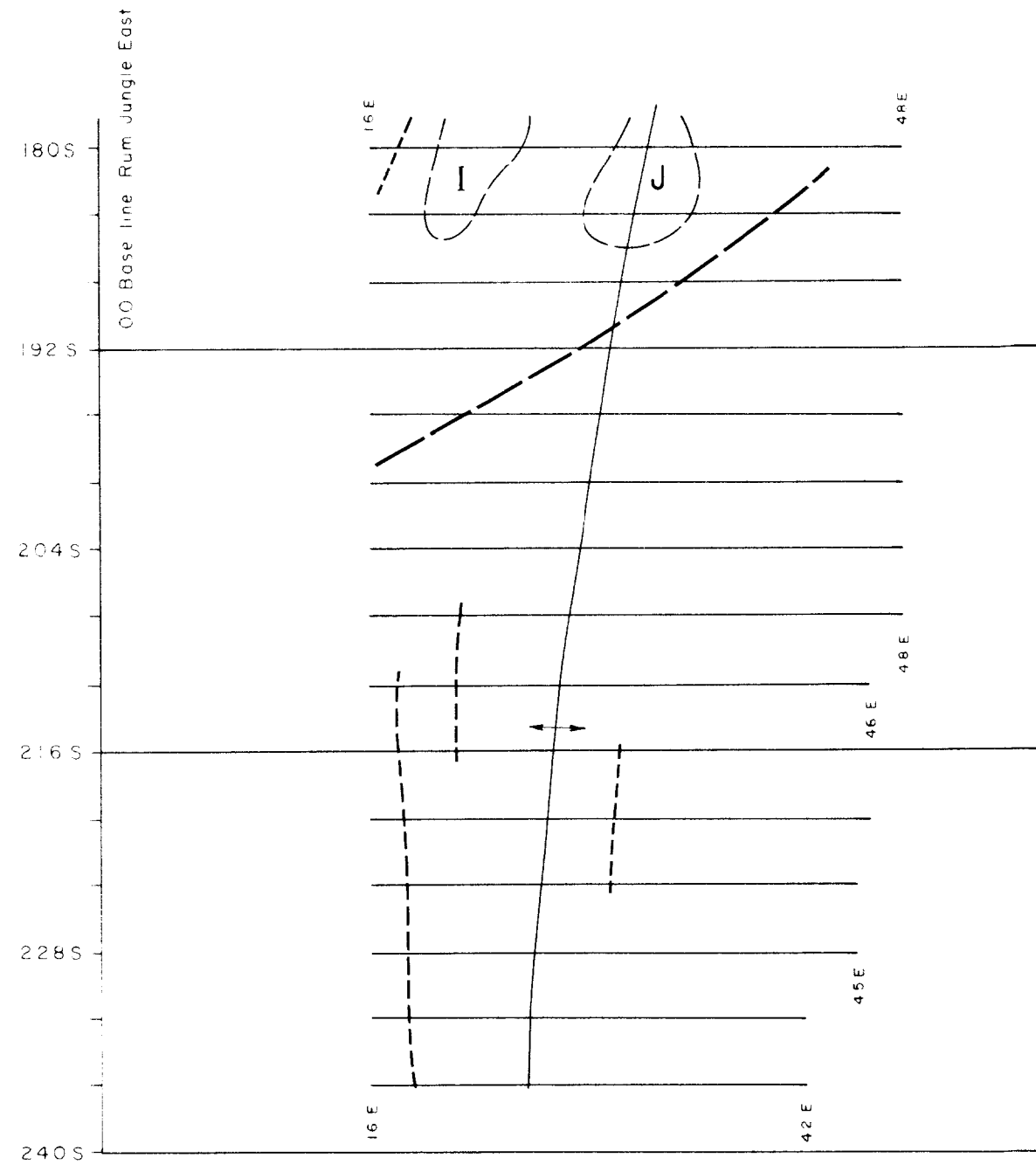
Zinc values not known



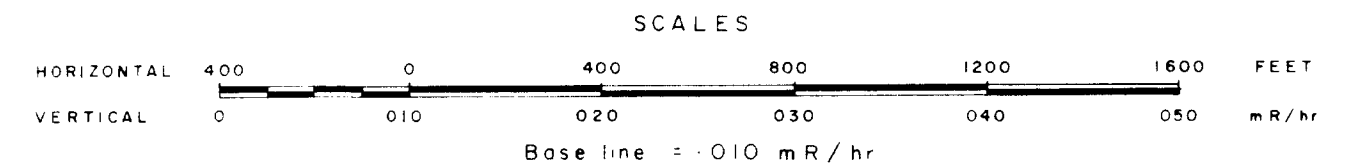
WOODCUTTERS L5 AREA, NT
SLINGRAM REAL & IMAGINARY COMPONENT PROFILES

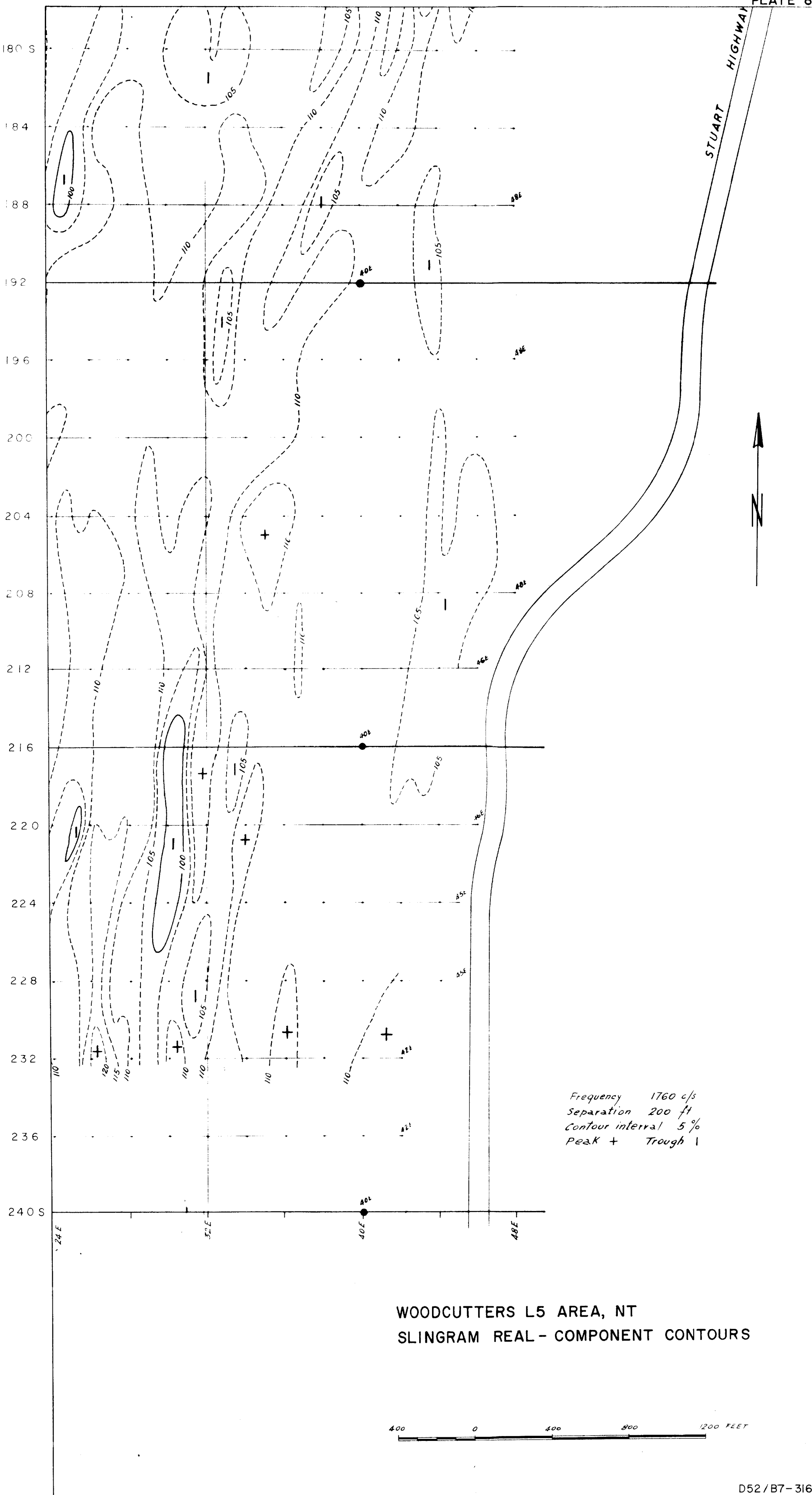
— Real
- - - Imaginary
Frequency 1760 c/s
Coil separation 200ft
Traverse spacing not to scale

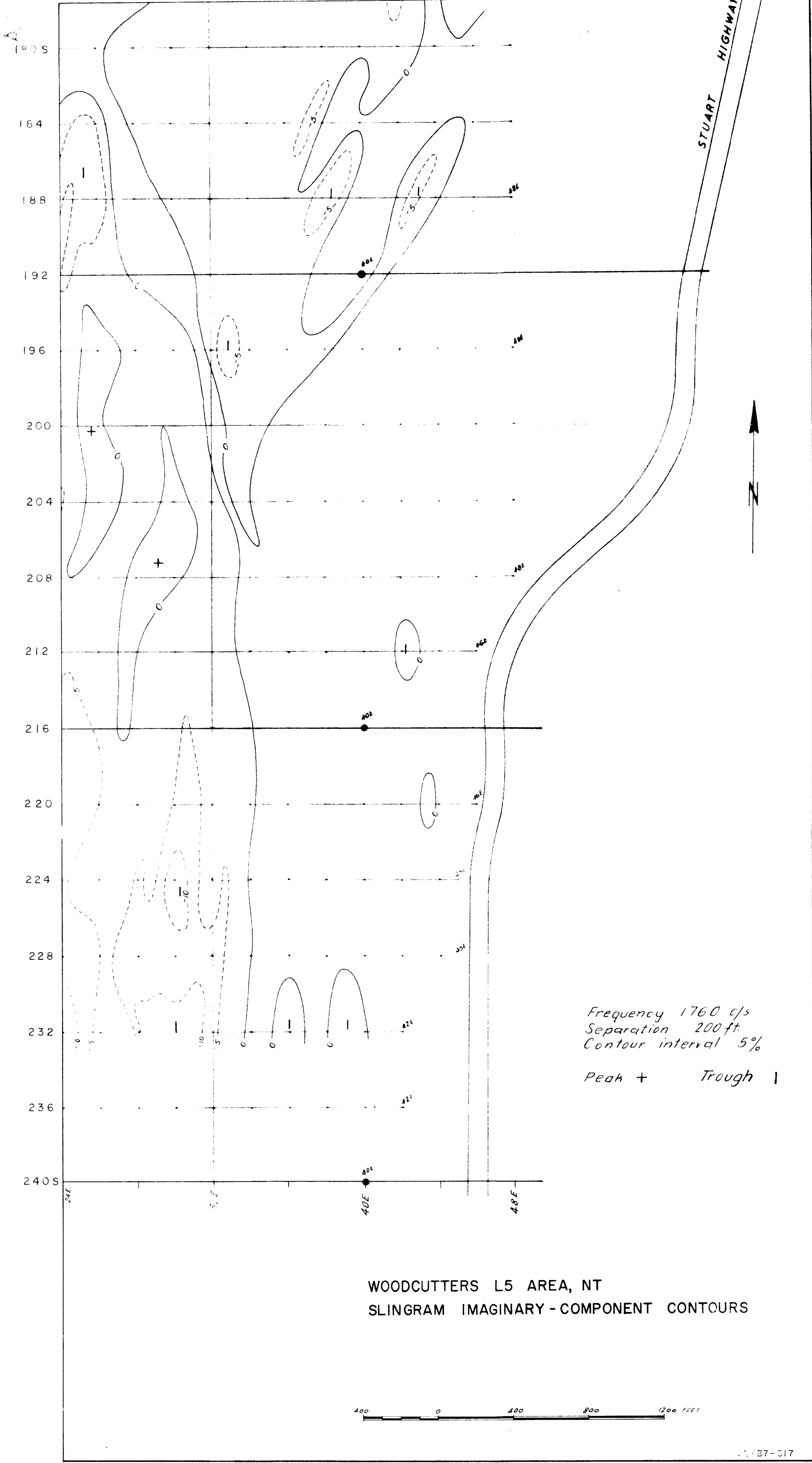




WOODCUTTERS L5 AREA, NT
RADIOMETRIC RESULTS





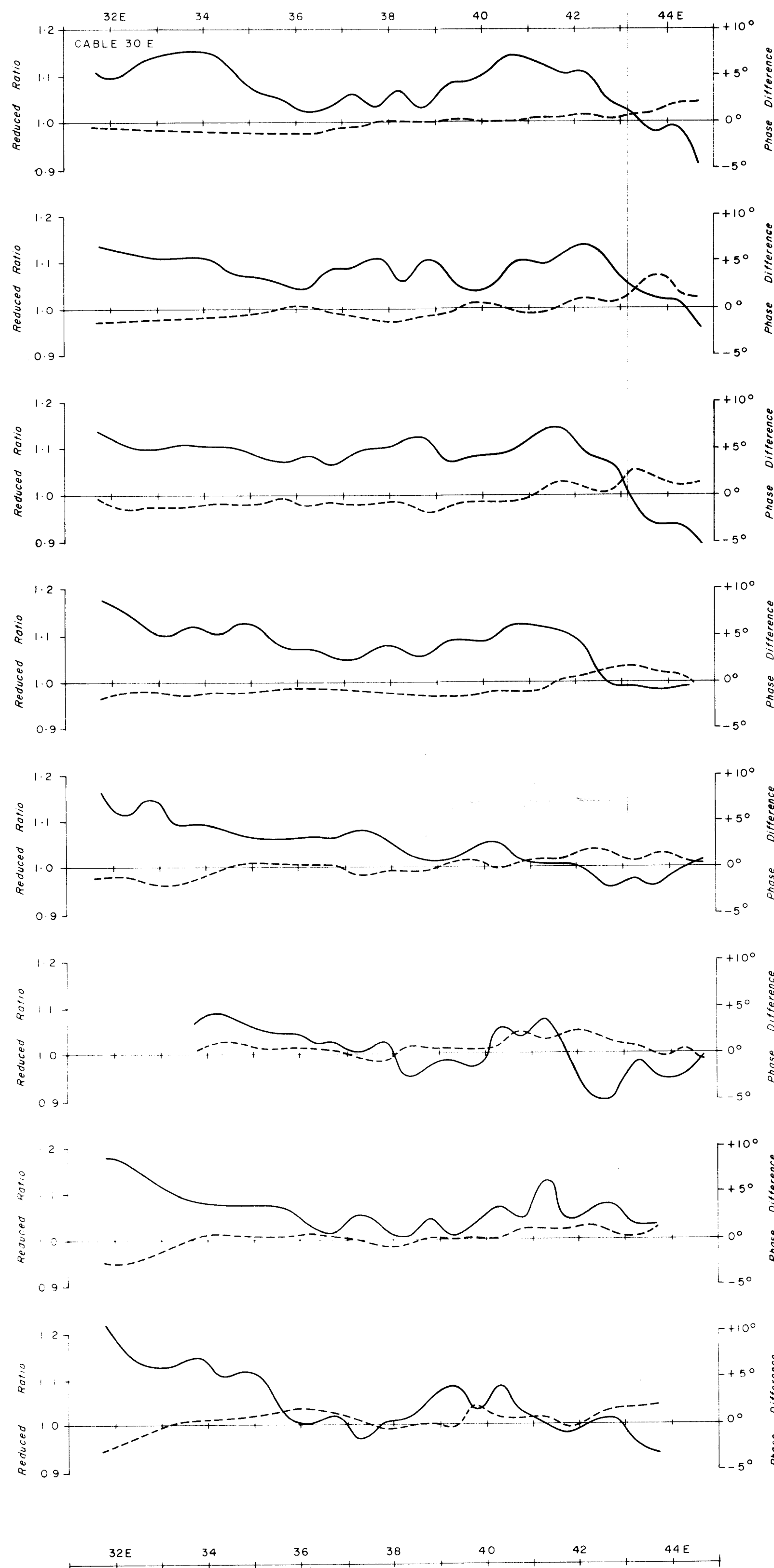


WOODCUTTERS L5 AREA, NT
SLINGRAM IMAGINARY - COMPONENT CONTOURS

400 0 400 800 1200 FEET

TURAM PROFILES

SLINGRAM PROFILES



TRAV.
200S

TRAV.
204S

TRAV.
208S

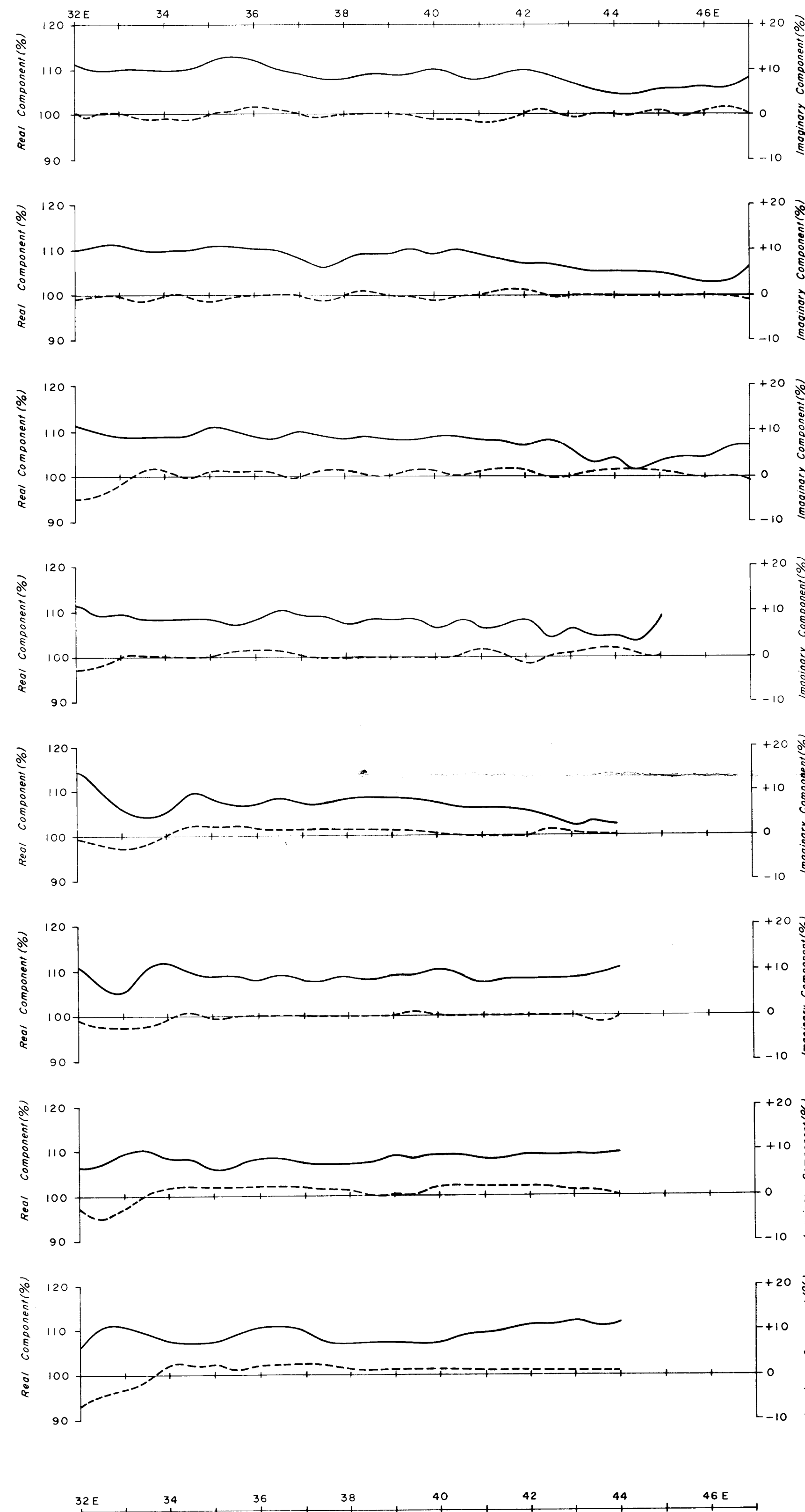
TRAV.
212 S

TRAV.
216 S

TRAV.
220S

TRAV.
224S

TRAV.
228 S



LEGEND

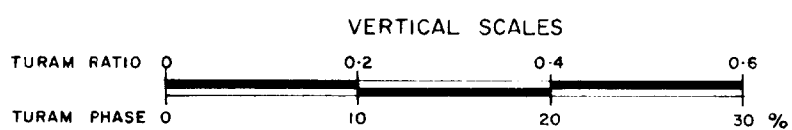
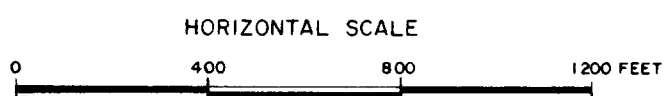
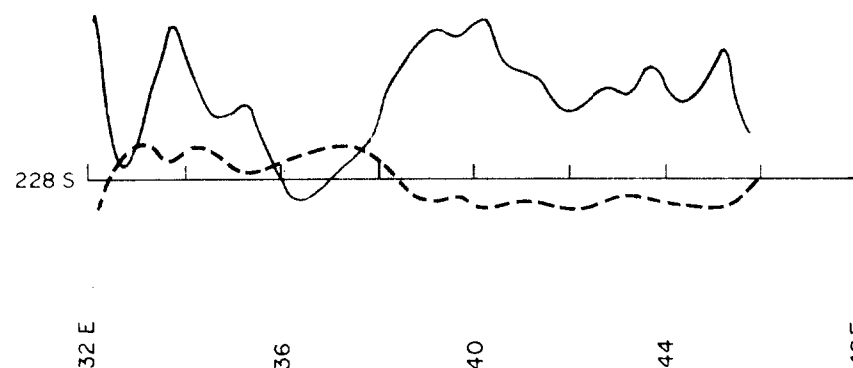
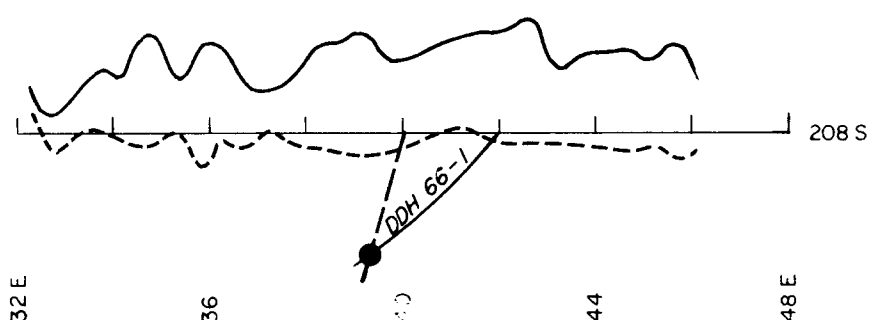
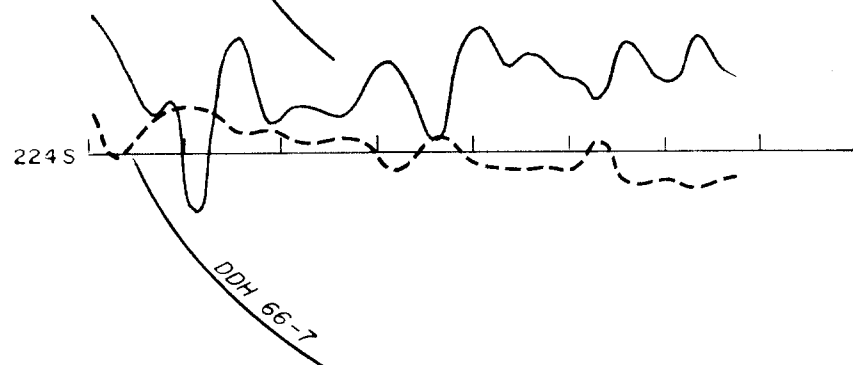
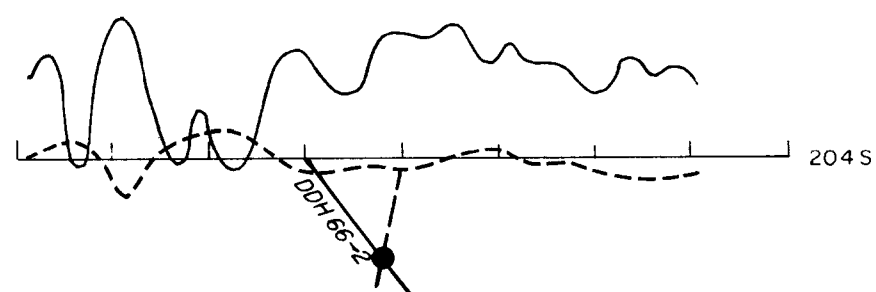
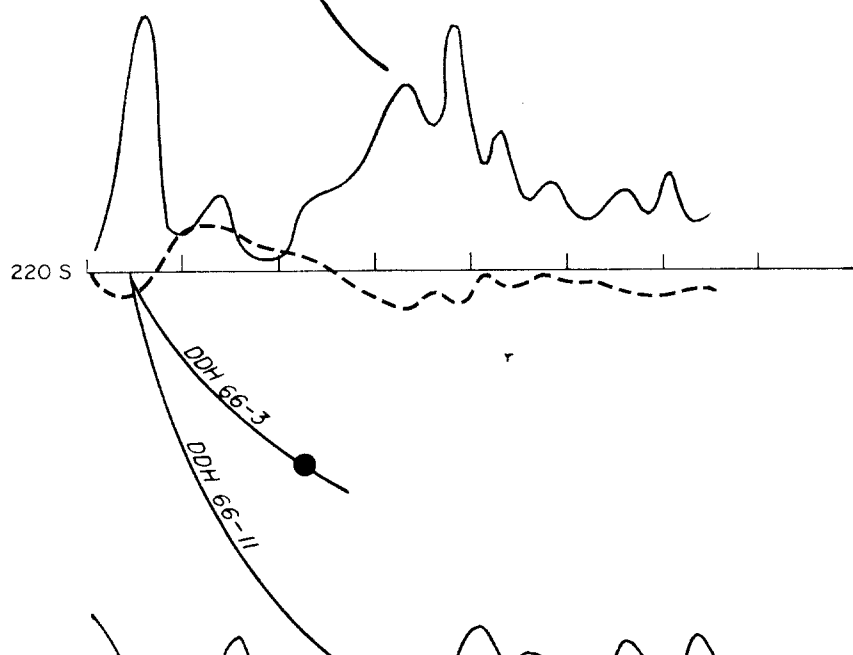
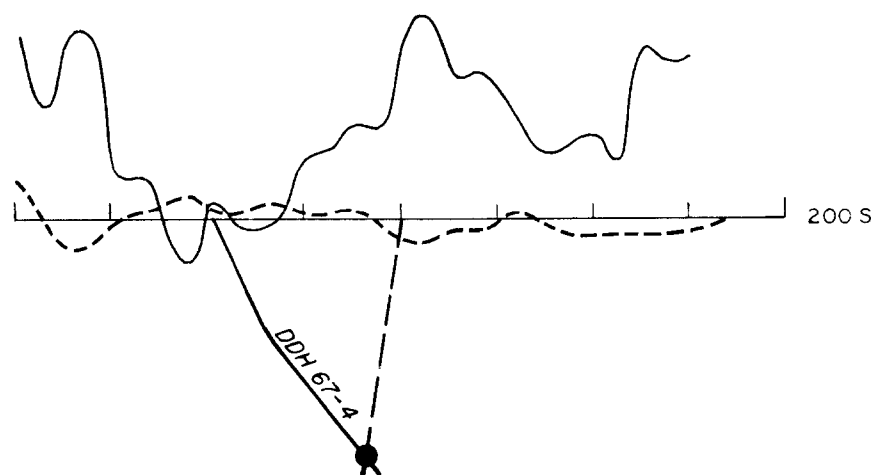
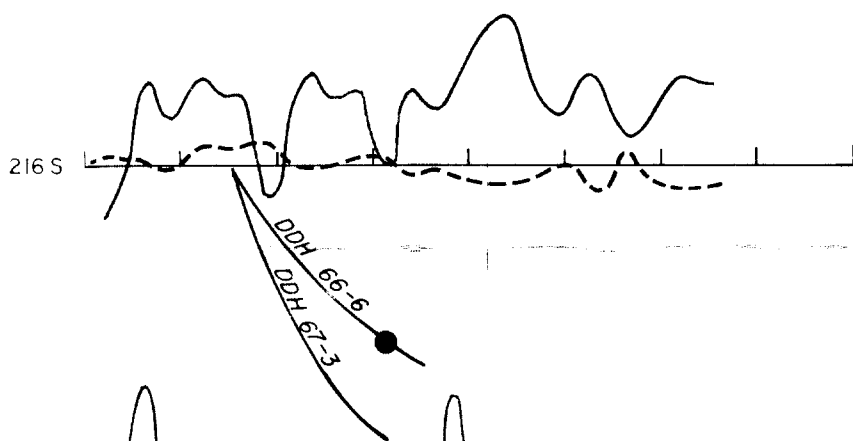
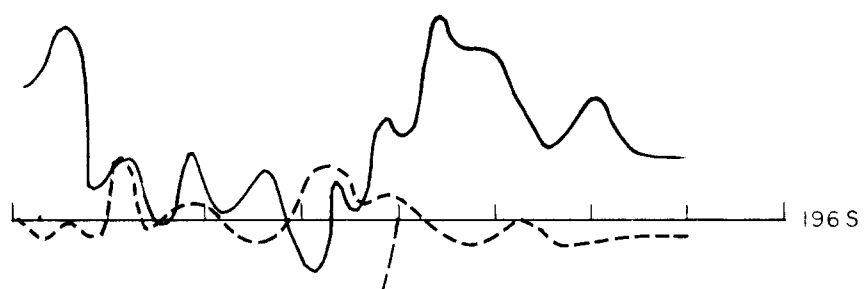
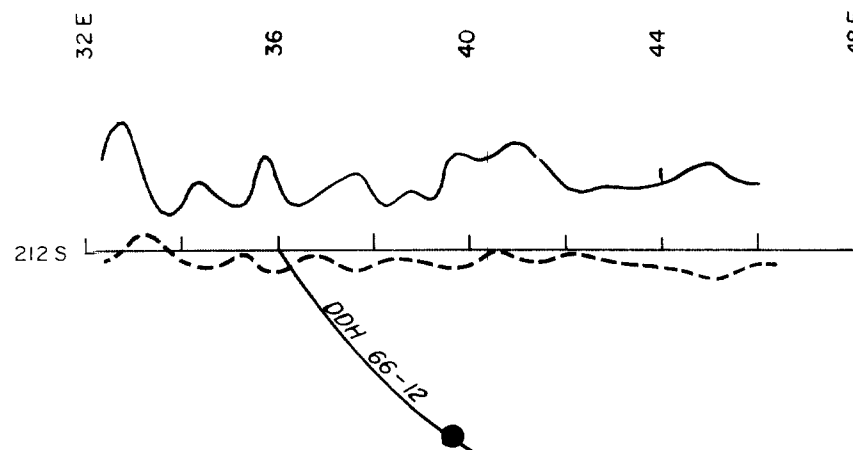
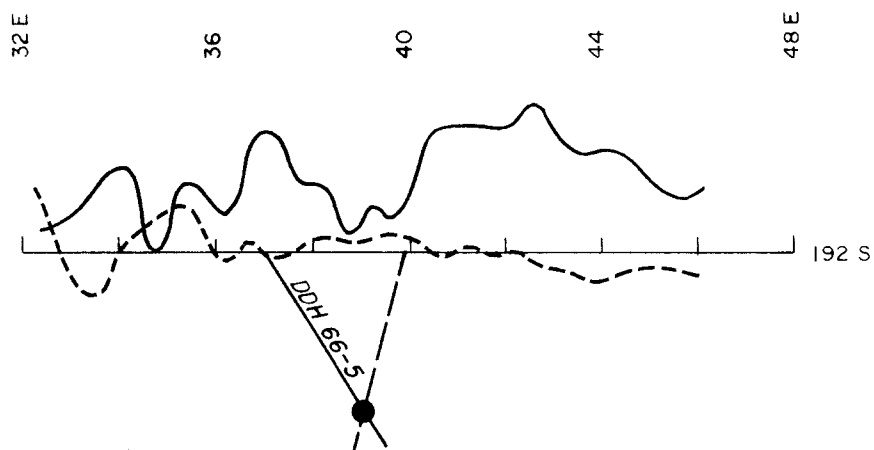
— Reduced Ratio or Real Component
 - - - Phase Difference or Imaginary Component

TURAM : 220 c/s, 50 ft coil separation. Primary Field Cable 30 E

SLINGRAM : 1760 c/s, 200 ft coil separation

WOODCUTTERS L5 AREA, NT
 TURAM & SLINGRAM PROFILES





LEGEND

- Turam ratio
- Turam phase
- Sulphides
- Inferred sulphides

Front of primary field loop was along 48 E

WOODCUTTERS L5 AREA, NT, 1967
TURAM PROFILES & DRILLING
RESULTS

D52/B7-342

17-11-77-230

2nd JUNGLE UNIT TEST, Campbell Bay, 1966, NT.

SINGLE POINT RESISTANCE LOG

Bottom of casing
ohms
0 200
WIDCO "1000" LOGGER

ohms
0 200

140

150

160

170

180

190

200

210

220

230

240

250

260

270

280

290

300

310

320

330

340

350

360

370

380

390

400

410

420

430

440

450

460

470

480

490

500

510

520

530

540

550

560

570

580

590

600

610

620

630

640

650

FEET

IN

DEPTH

IN FEET

ohms

0 200

ohms

0 200

ohms

0 100

WEATHERED SLATE

CARBONACEOUS SLATE

DOLLOMITTE

CARBONACEOUS SLATE

SULPHIDE

LODE

CALCULITE AND
CARBONACEOUS SLATE

CARBONACEOUS

SLATE

RADIOMETRIC LOG

mR/hr
0 0.015

WIDCO "1000" LOGGER

PROBE LOST
AT THIS
POINT

260

270

280

290

300

310

320

330

340

350

360

370

380

390

400

410

420

430

440

450

460

470

480

490

500

510

520

530

540

550

560

570

580

590

600

610

620

630

640

650

DEPTH

IN

FEET

WOODCUTTERS L5 AREA, NT
RESISTANCE & RADIOMETRIC LOGS
OF DDH 66-3

Scales: As shown

WOODCUTTERS L5 AREA, NT
TRAVERSES 204S, 208S, 220S
COMPARISON OF GEOPHYSICAL &
DRILLING RESULTS

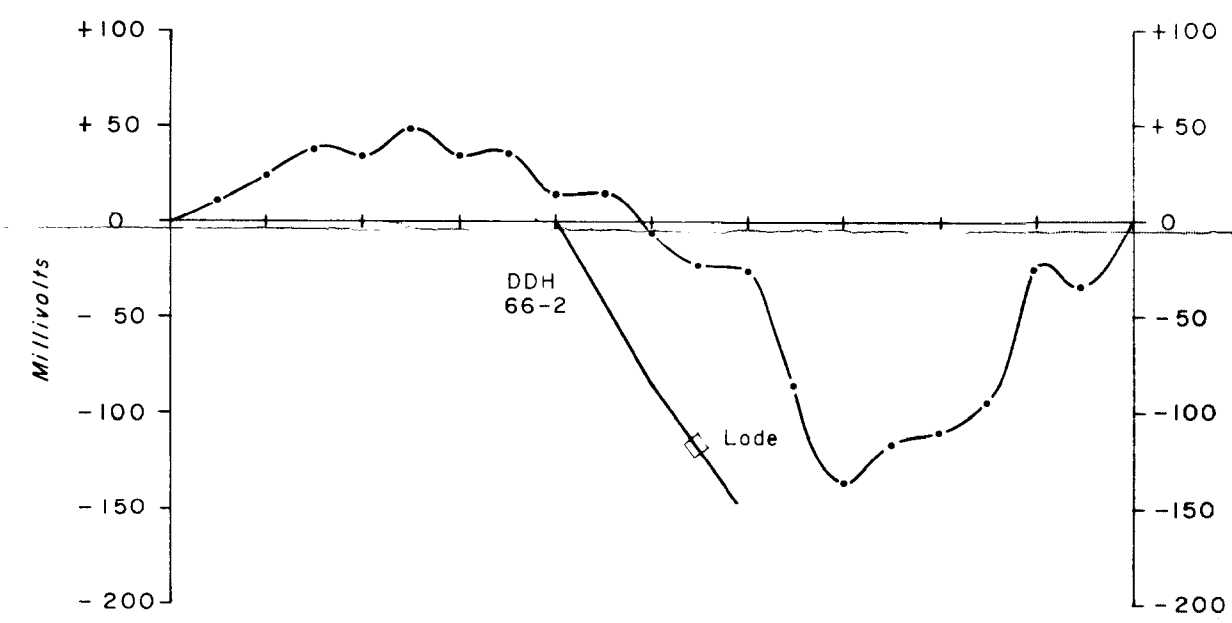
LEGEND

TURAM : 220 c/s, 50 ft coil separation, primary field cable at 30E
I P : Dipole length 100 ft, frequencies 0.3 c/s, 5c/s
S-P : Base 204S, 44 E

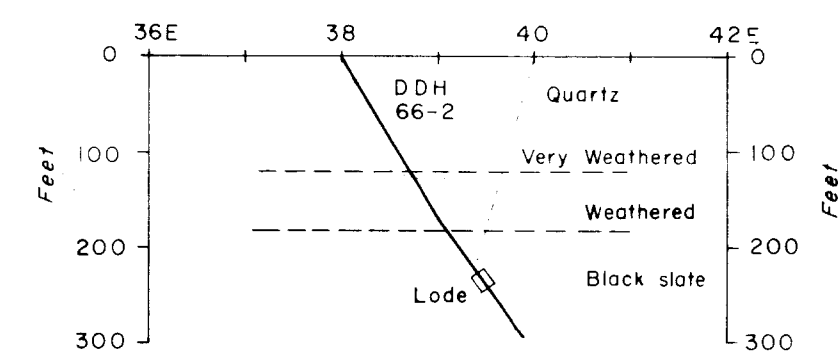
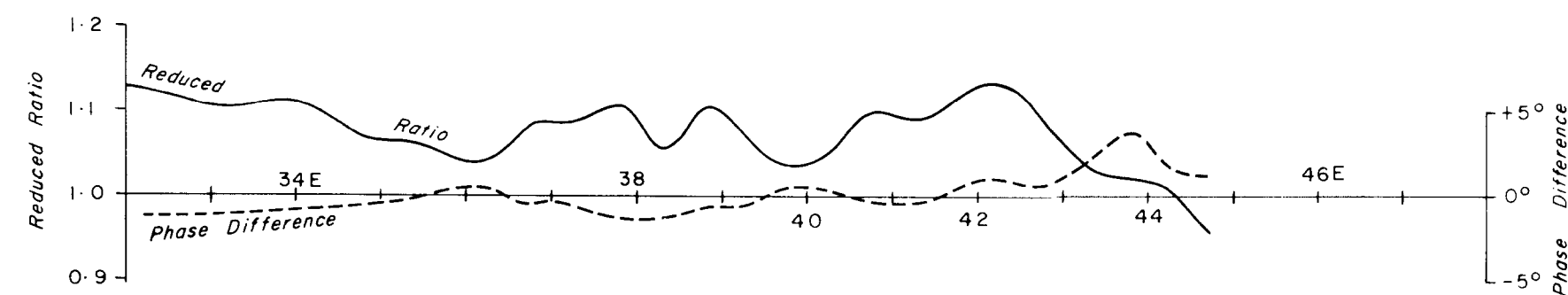


TRAVERSE 204S

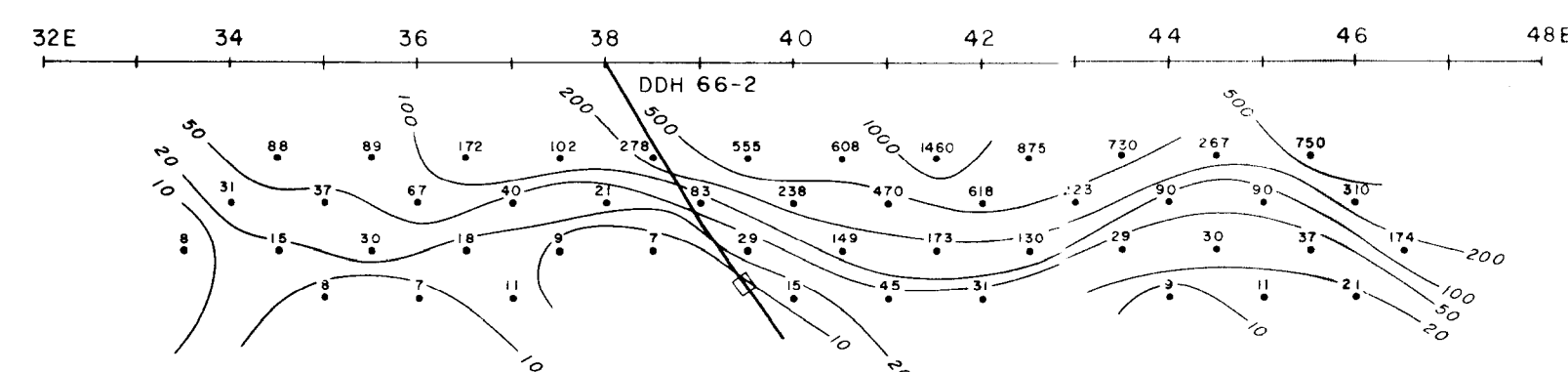
SELF-POTENTIAL PROFILE



TURAM PROFILES

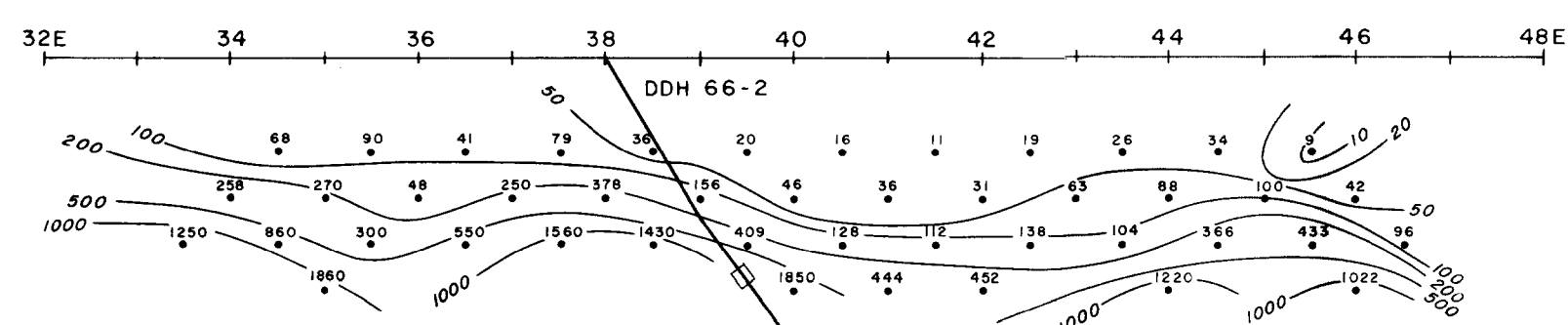


INDUCED POLARISATION RESULTS



APPARENT RESISTIVITY
(ohm-metres)

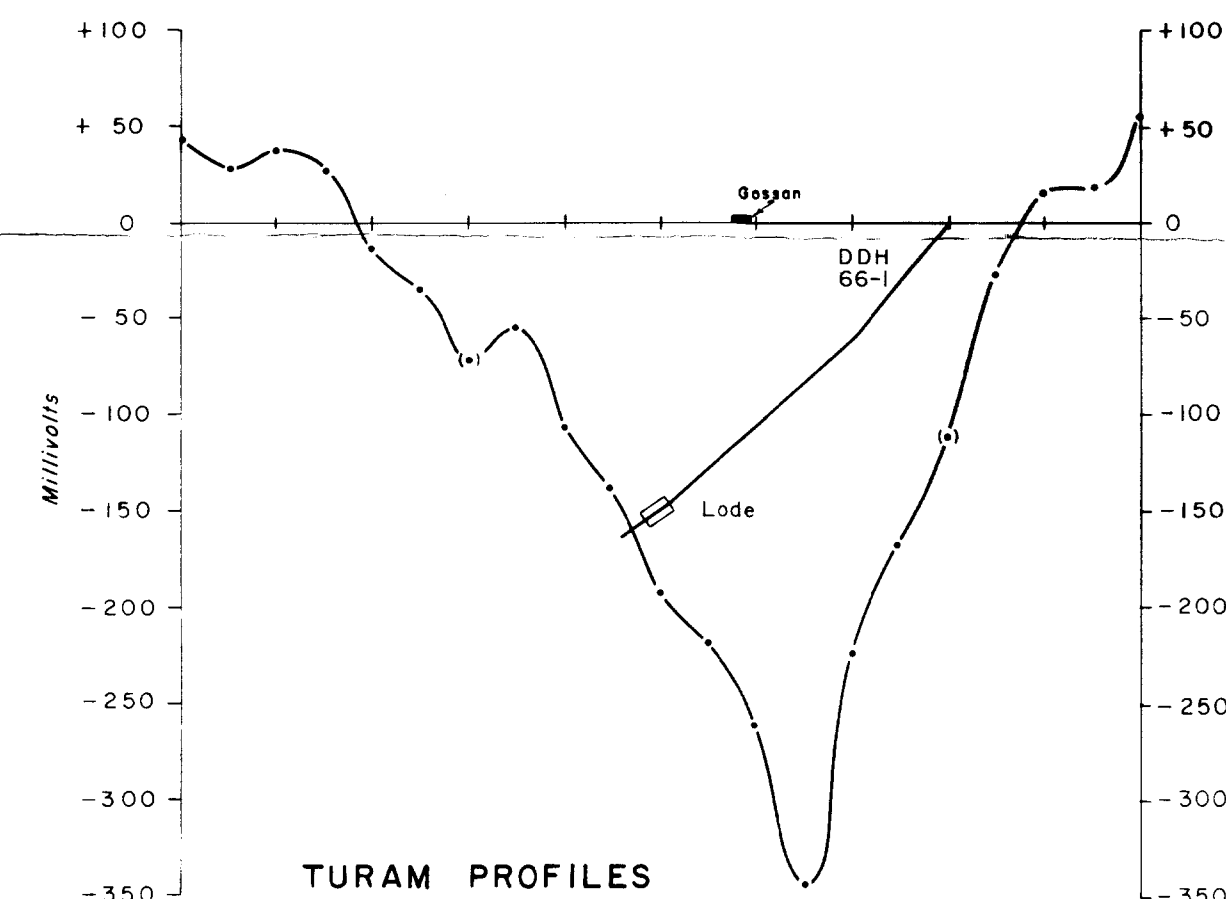
FREQUENCY EFFECT
(%)



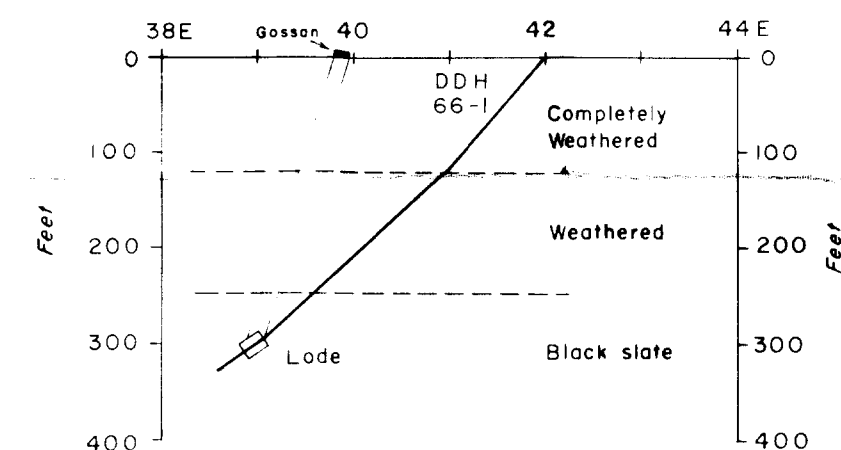
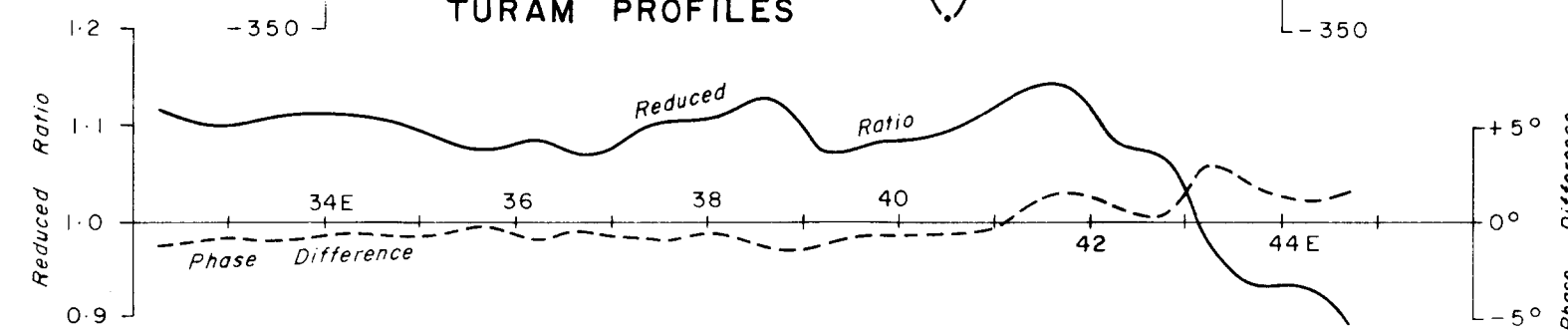
METAL FACTOR

TRAVERSE 208S

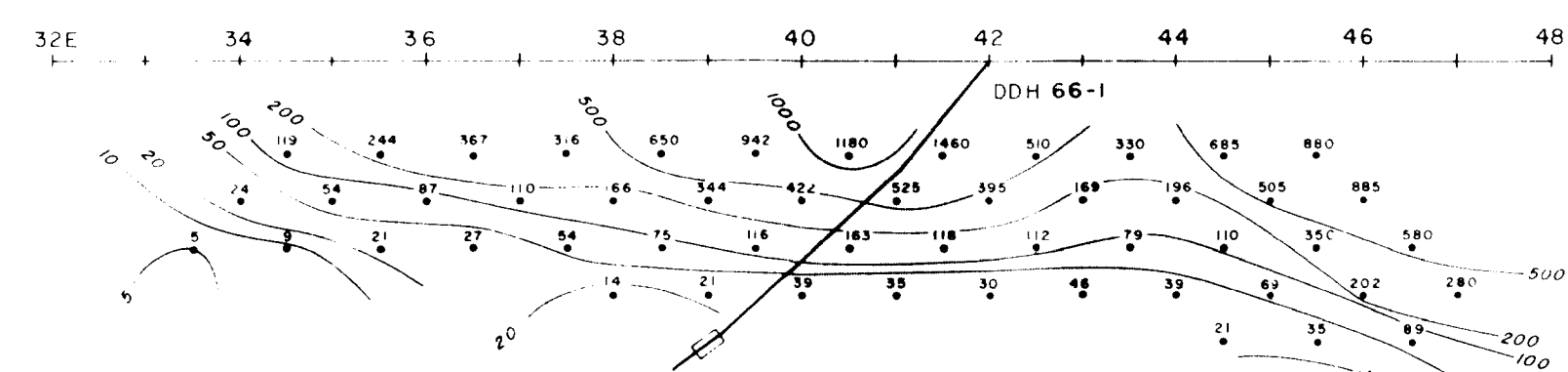
SELF-POTENTIAL PROFILE



TURAM PROFILES

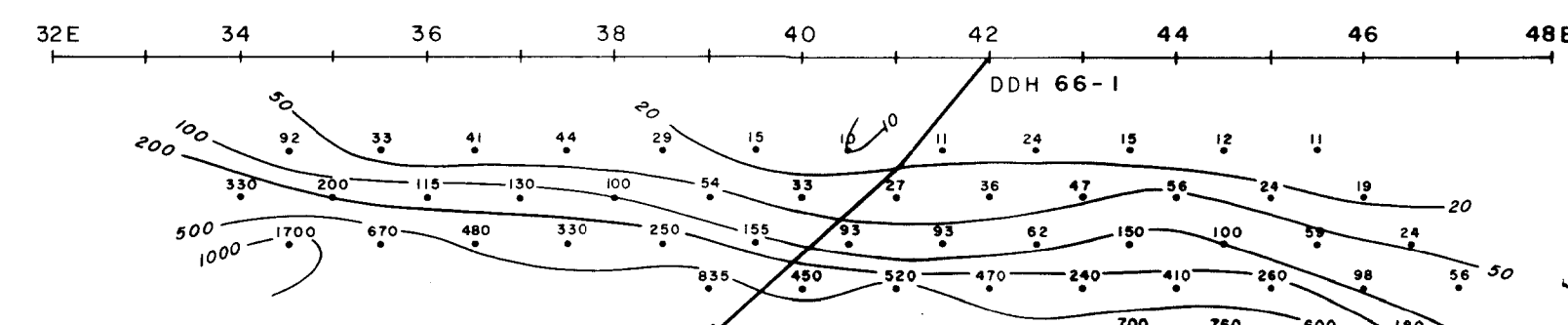


INDUCED POLARISATION RESULTS



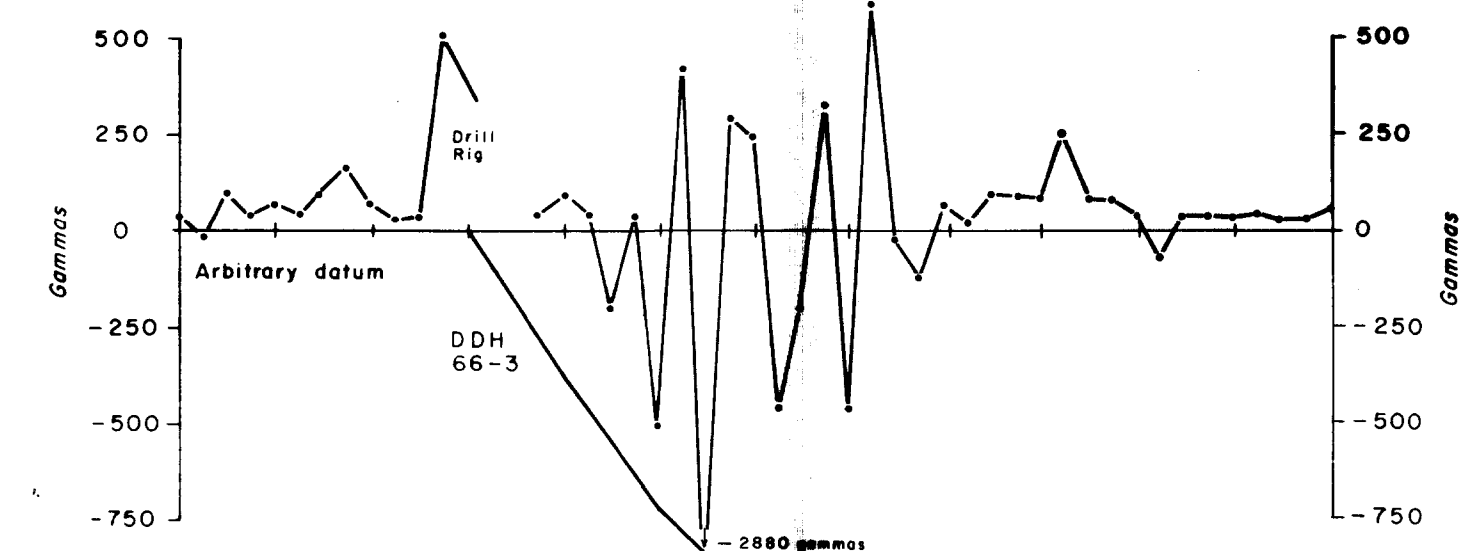
APPARENT RESISTIVITY
(ohm-metres)

FREQUENCY EFFECT
(%)

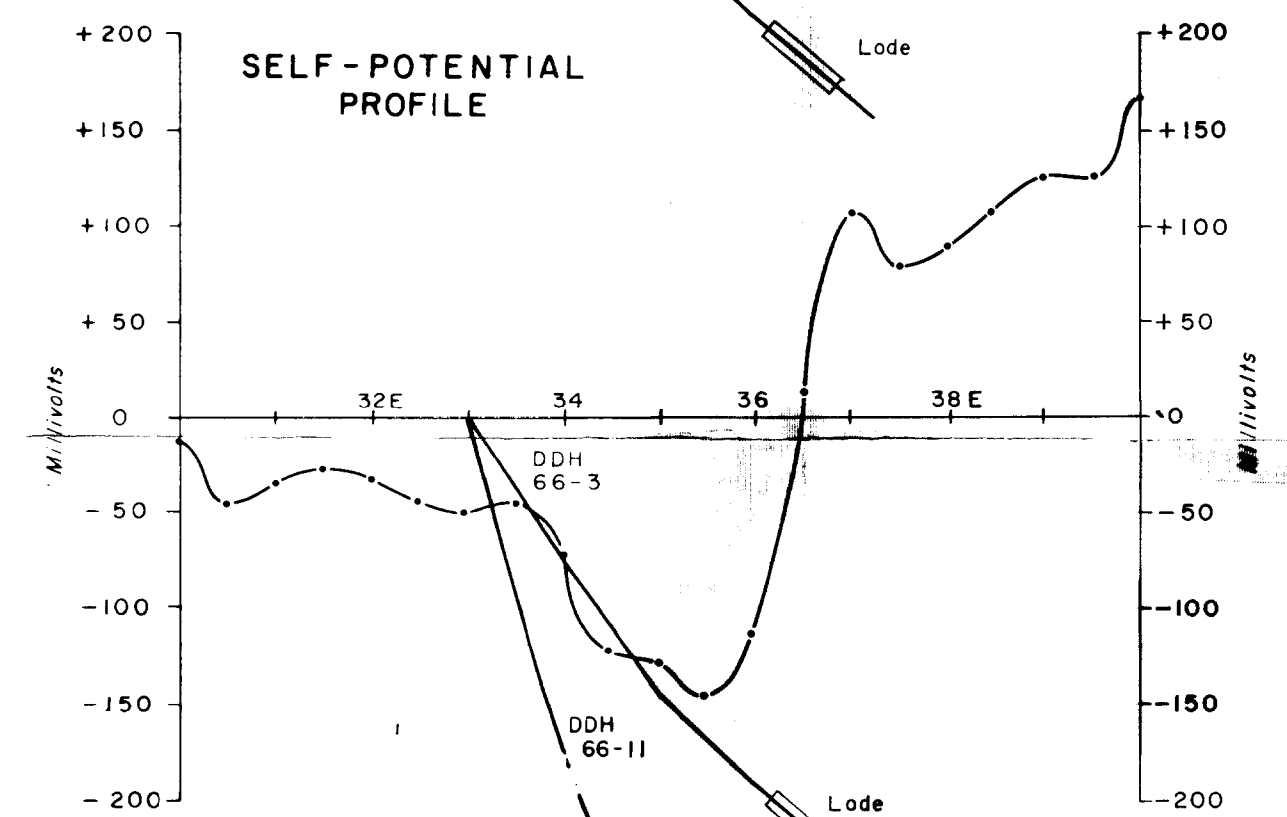


METAL FACTOR

VERTICAL MAGNETIC PROFILE

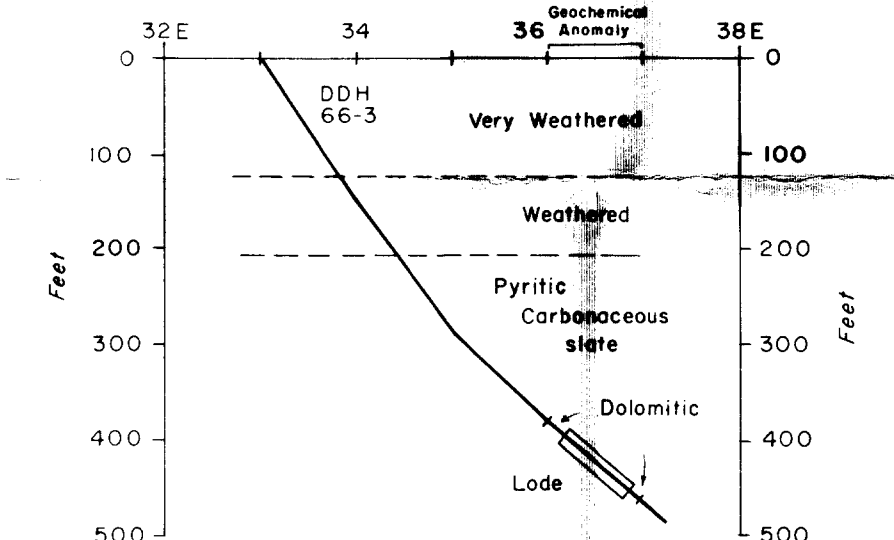
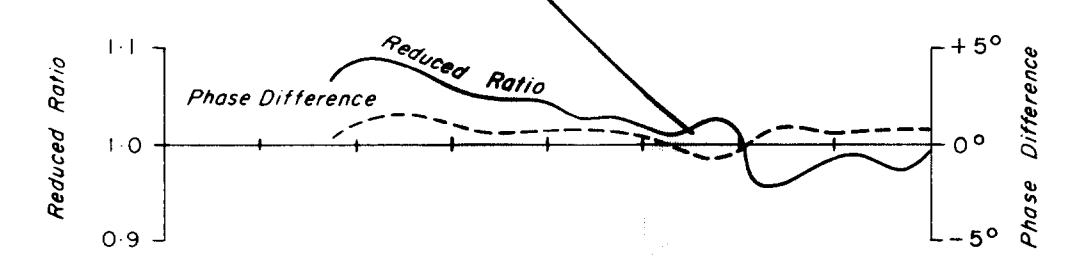


SELF-POTENTIAL PROFILE

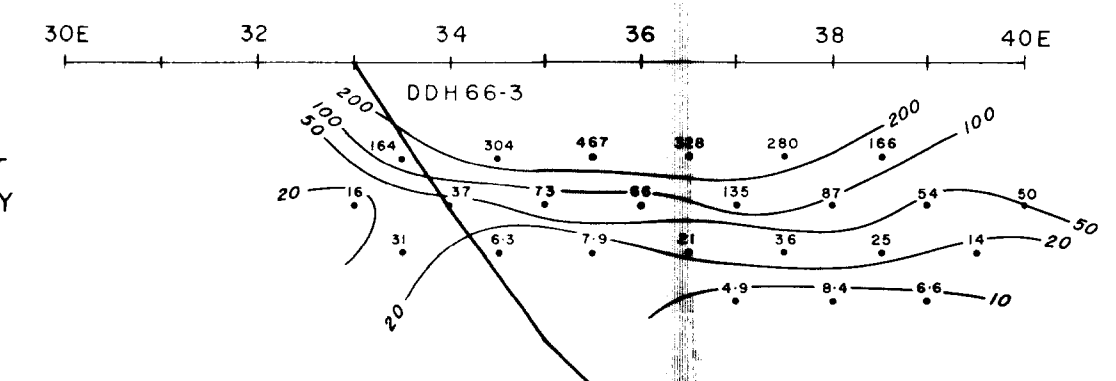


TRAVERSE 220S

TURAM PROFILES

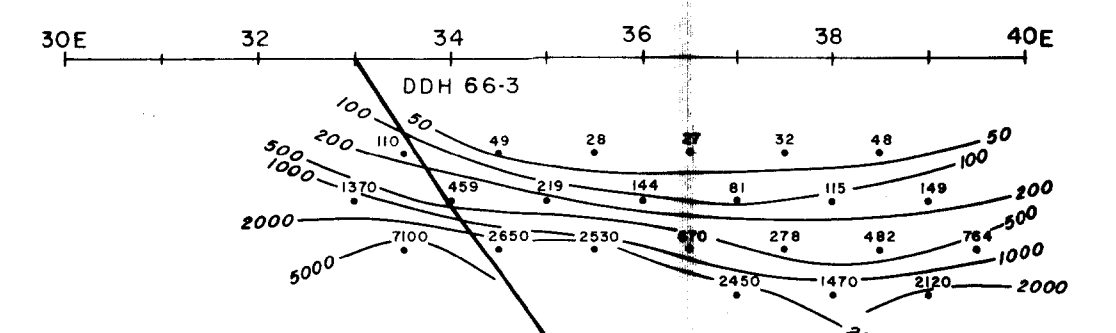


INDUCED POLARISATION RESULTS

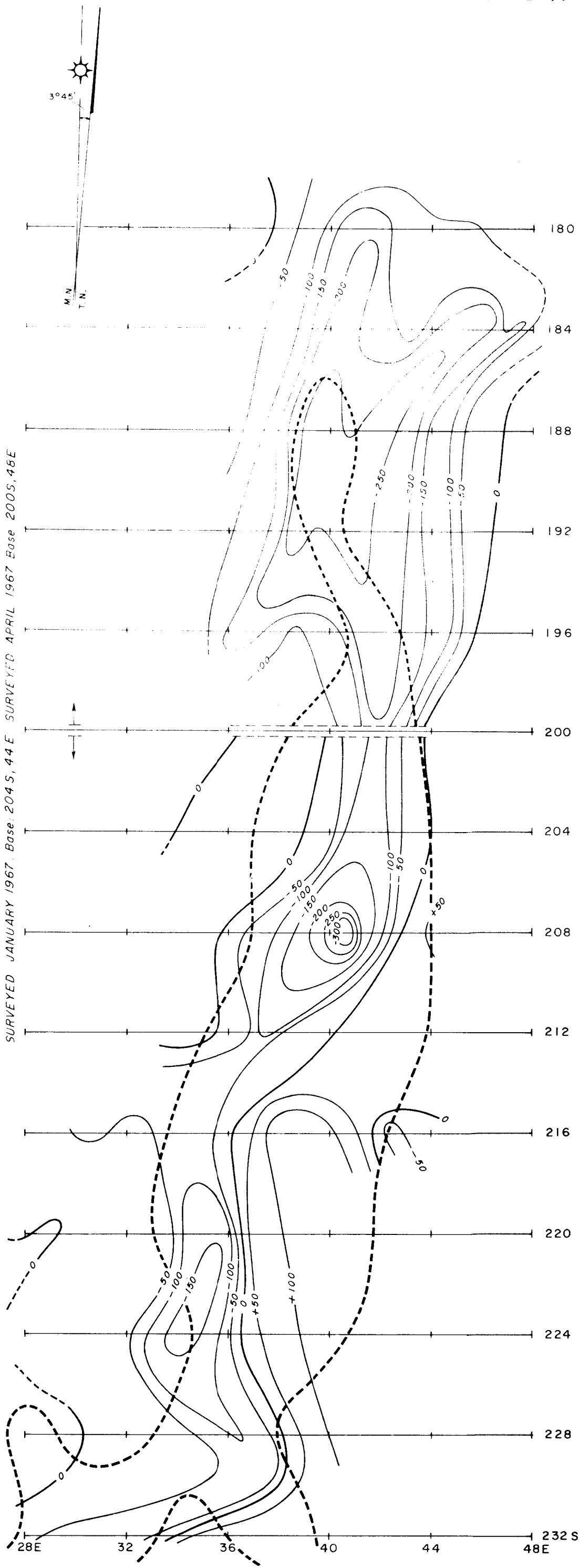


APPARENT RESISTIVITY
(ohm-metres)

FREQUENCY EFFECT
(%)



METAL FACTOR

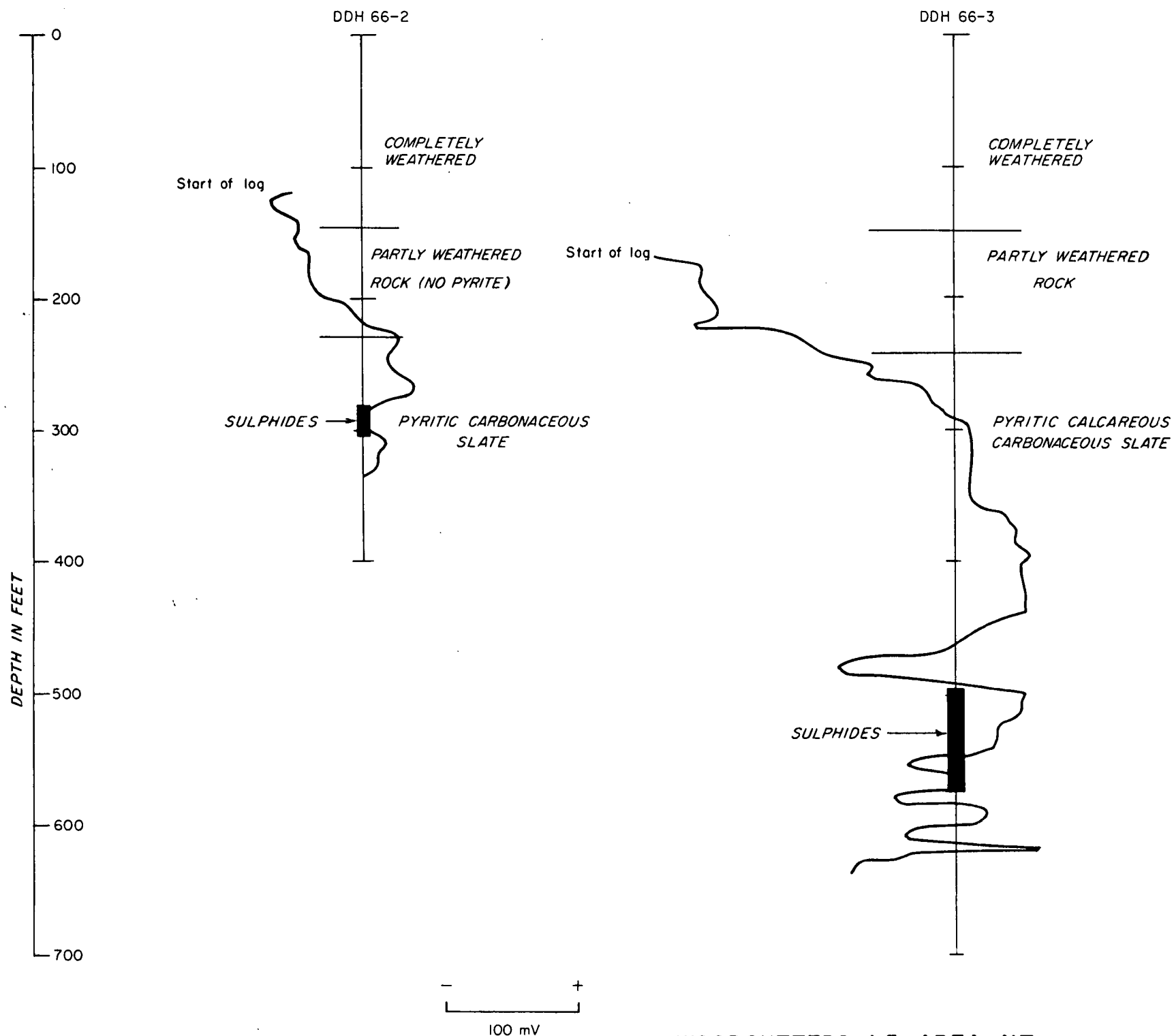


WOODCUTTERS L5 AREA, NT
SELF - POTENTIAL CONTOURS

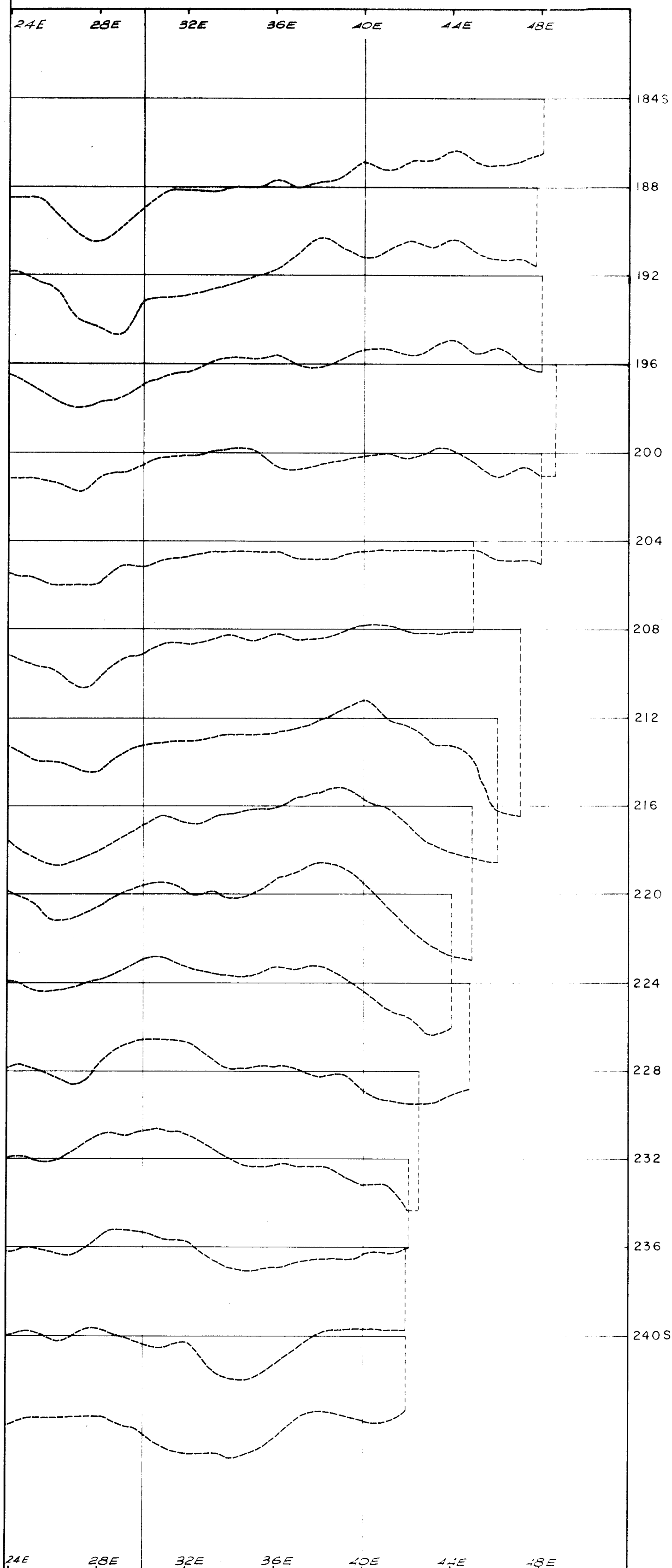


--- 100 p.p.m. geochemical lead contour (after Shatwell, 1966)
Bases: 200 S, 48 E; 204 S, 44 E

RUN JUNGLE EAST TEST. Geoph. Survey 1966. N.T.
1967

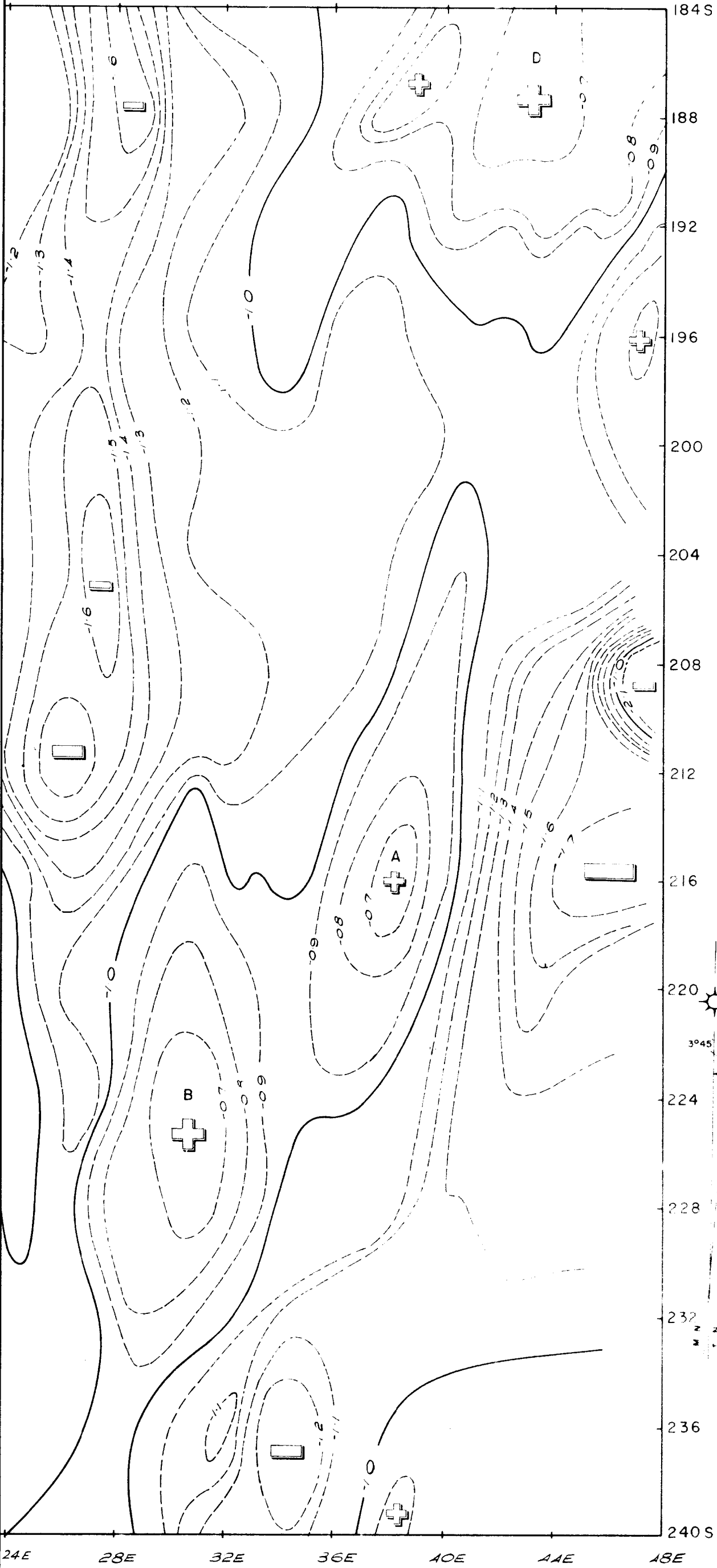


WOODCUTTERS L5 AREA, NT
COMPARISON OF S.P. LOGS &
DRILLING RESULTS DDH 66-2 & DDH 66-3



WOODCUTTERS L5 AREA, NT
GRAVITY PROFILES

Horizontal 400 0 400 800 1200 1600 Feet
Vertical 0 1 2 3 4 Milligals



WOODCUTTERS L5 AREA, NT
GRAVITY CONTOURS

