GEOLOGICAL REPORT

on

CRAIG PROPERTY, 1977
Mayo Mining District, Y.T.
64°09'N, 132°20'W, NTS 106 C3

by

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for

McINTYRE MINES LIMITED
June 4 - Sept. 16, 1977

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work to the amount of

$ 69,120

A/ Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

B. R. BAXTER
Supervising Mining Recorder

for Commissioner of Yukon Territory

TABLE OF CONTENTS

ILLUSTRATIONS

TABLES

CRAIG PROPERTY, 1977

SUMMARY

1. For the 1977 season the Craig holdings totalled 696 claims, the drilled footage totalled 15,756 feet and expenditures totalled approximately $780,000.

2. Silver-lead-zinc at the property is governed by a breccia structure within a dolomite host. A carbonaceous horizon appears to form a significant control and a silicic envelope is closely associated with the principal sulfide zone.

3. Drill inferred tonnage developed from the West zone totals one million tons grading 8% Pb, 13% Zn and 3 oz/T Ag. There is scope for increasing this reserve by extrapolation to the east, to the west and down the dip.

4. Exploration interest centres on the West zone but the Discovery and Trent prospects are attractive in their own right; two strong geochemical anomalies remain to be tested and the full significance of the Scott area remains to be determined.

5. The property merits continued development under improved economic conditions. Its apparently moderate potential coupled with the remote location argues against an early pursuit of production possibilities.

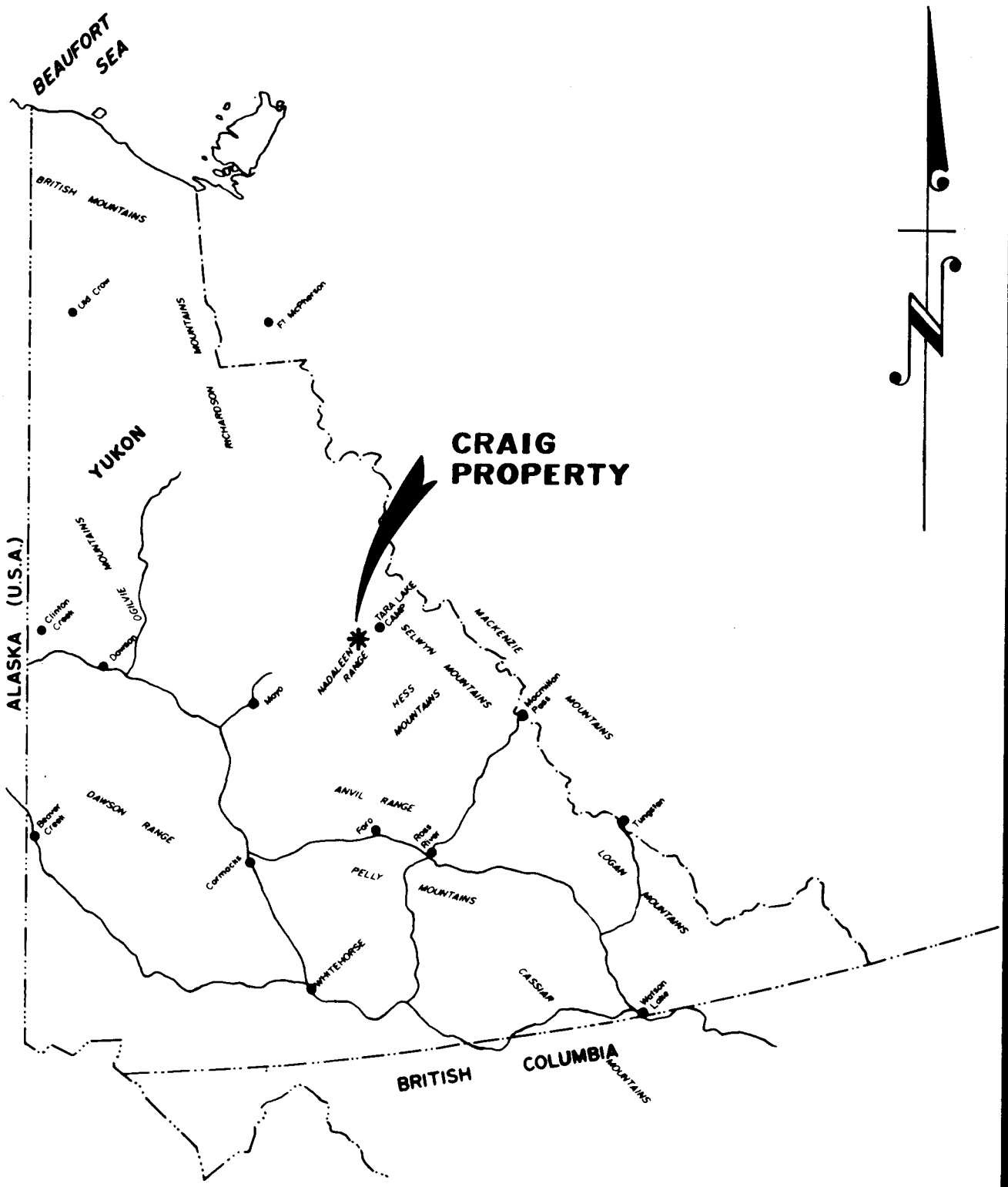

FIGURE 1

CRAIG PROPERTY LOCATION MAP

Map No. C7G 9-5

INTRODUCTION

The Craig property is an important silver-lead-zinc prospect situated 88 miles northeast of Mayo, Yukon Territory, in the Nadaleen Range of mountains (Figure 1). Discovered in 1976,its principal deposits are associated with breccia bodies which are developed within a carbonate host rock. Evaluation in 1977 indicates a potential for economic grade within individual ore zones, and a scope for commercial tonnage within the overall ore field.

The objective in 1977 was to assess by diamond drilling the three principal showings of West, Discovery, and Trent. To further this goal, information was obtained concerning the relation of mineralization to fracture patterns, to breccia bodies and to depositional environments. To develop additional guides mapping, soil sampling and geophysical orientation was undertaken, and the location of important features was provided by precise survey.

Development work in 1977 consisted primarily of scout and grid drilling for a total of 15,756 feet. A drill inferred tonnage of approximately one million tons grading 21% combined lead and zinc with 3 oz per ton silver was obtained in the West Zone.

Expenditures on the property were approximately $780,000 for the period January 1st to December 31st, 1977. The distribution of costs is outlined under separate report titled Craig Property, Data Summary (Gifford 1977).

All members of the geological, administrative and support group contributed a co-operative and considerable effort in bringing the project to completion (Appendix B). Particular credit is extended to Mr. A.E. Angus for providing a smoothly functioning camp support.

LOCATION, ACCESS AND PROPERTY

The property is situated in the Mayo Mining District 60 air miles northeast of the nearest road at Keno Hill, Y.T. Its coordinates and N.T.S. grid postion are 64°09' N, 133°20'W and 106 C/NG8215, respectively. It falls within map-sheets 106 C/3 and 4, its declination was 34°E in 1977 and the principal showings occur between 2,600 and 4,900 feet elevation.

Access was gained by float plane to base camp at Tara Lake then by helicopter to the property. Tara Lake is situated 102 miles northeast of the nearest supply centre at Mayo, Y.T., and 14 miles northeast of the property.

The Craig property is owned entirely by McIntyre Mines Limited and totaled 696 claims as of November, 1977. Work requirements to satisfy government stipulations amount to $100 per claim per year, with excess allowed to carry forward. All claims in the Craig property are in good standing through 1980 when new expenditures become necessary to retain tenure.

HISTORY

The Craig belt of mineralization was discovered late in July, 1976 by an exploration team of McIntyre Mines Limited following aerial recognition of significant silicic alteration within carbonate terrane. Subsequent ground follow-up located the Discovery Zone of lead-zinc mineralization, and shortly following this, intensive prospecting resulted in discovery of the West, Trent, Scott, Azure and Nadaleen zones in that order. The discovery stemmed from a program of systematic reconnaissance exploration of the Hadrynian carbonate belt operating into its third field season.

Staking of the property commenced on July 30, 1976, and preliminary geological mapping, silt surveys and sampling of the showings were accomplished in the remainder of the 1976 season (Floyd and Birkeland, 1976). No evidence of previous work has been found on the property.

OPERATIONS

Base camp for the Craig project was established at Tara Lake, its elevation at 4,000 feet and length of one-half mile being suitable for Otter and Turbo-Beaver float planes. Approximately 80 tons of drilling equipment, supplies and fuel sufficient to sustain operations into late July were airlifted from Mayo Y.T. in early April. Camp construction commenced in April and camp was opened for the field season on June 4th.

Drilling was accomplished between June 15th and August 8th and camp was closed on September 16th. Crew size for the season varied between 27 and 40 men. Field operations were serviced at frequent intervals by either Otter CF-SUB or Turbo-Beaver CF-ONI from Mayo, Y.T. 102 air miles to the southwest. Personnel and diamond drill moves were supported full time by 206B-helicopter CF-TNT based at camp.

DEVELOPMENT

A total of 15,756 feet was drilled in 29 holes, encompassing Nos. C77-1 to 29. A summary of progress is shown in Table 1. Graphic logs at 1" = 40' and all assays for drilling to date are compiled under separate report titled Craig Property, Data Summary (Gifford, 1977).

TABLE I
DIAMOND DRILLING PROGRESS

Drilling 1977	West Zone	19 holes	10,459'
	Discovery Zone	6 holes	3,415'
	Trent Zone	4 holes	1,882'
Total 1977		29 holes	15,756'
Previous Total		nil	nil
Total to Date		29 holes	15,756'

Two diesel powered drills, a Longyear 38 and Boyles BBS#1, with BQ wireline equipment were employed. The Longyear rig operated from June 15th to August 8th and the Boyles rig from July 13th to August 7th. Most holes required extensive drill site preparation.

One drill, the BBS#1, was stored at the Discovery Zone for the winter season. The other was demobilized from the property.

The longest hole drilled in the campaign was 875 feet, most holes were 400 to 600 feet in length. The depth of overburden drilled was generally thin, ranging usually from 20 to 40 feet in vertical extent. No conditions of permafrost were encountered.

One hole, DDH 8, was terminated short of target depth due to poor ground conditions, and one hole, DDH 11, was locally re-sited due to shifting of its foundation material.

Acid-etch dip tests were employed for down-the-hole control, all holes were inclined and their deviations at times were significant. Unfortunately attempts at use of Sperry-Sun single-shot directional equipment were unsuccessful due to a faulty mechanism, and momentum of the program did not allow time for replacement.

The drilling routine employed two - 12 hour shifts per rig, operating on a seven o'clock to seven o'clock basis. The best footage obtained in a single shift was 310 feet, and for most holes the best shift was 200 to 260 feet. Elapsed time from collar to collar as a rule was 3 days.

The basic description of core was incorporated into graphical methods at a scale of 1" = 40' and 1" = 100' to assist in correlation of the sulfide concentrations and in the synthesis of depositional conditions. Photographs of all boxed core were taken for further reference, and a suite of rock types was assembled.

Sampled sections of core were halved with one part retained for reference and the other crushed to ¼" size on site. The crushed material was processed through a Jones splitter to provide a one-pound sample for subsequent shipment and analysis of its silver, lead and zinc content.

All core from drill holes C77-1 to 29 except 20 and 28 was stored in outside racks at Tara Lake base camp. DDH 20 and 28 were transferred to the warehouse of McIntyre Mines Ltd. at Vancouver, B.C. for further reference.

FIELDWORK

Geological mapping at 1" = 200' was undertaken in June and July on the West, Azure, Discovery and Trent areas; detailed mapping at 1" = 40' was performed on the West, Discovery and Trent showings and reconnaissance mapping at 1" = 1000' in August gave an overview of the property (Figures 5-7).

Soil surveys were conducted in August on two separate and distinct geologic belts which trend through the property, namely the Craig East carbonate belt and the Craig West shale belt. The Craig East belt was sampled at 100-foot intervals along lines spaced 400 feet apart directed across the trend, a base-line was cut to establish grid control covering a length of 6 miles and width of 2,000 feet, and 1,700 samples were collected. The Craig West belt was reconnaissance sampled at 200-foot intervals along ridge crests spaced roughly one-half mile apart directed across the trend, the survey tested a section 12 miles in length and 4,000 feet in width, and 700 samples were collected. In both surveys the 'B' soil horizon was sampled, and all soils were screened to -80 mesh prior to shipping for an analysis of their silver, lead and zinc content.

Prospecting was undertaken to systematically follow-up reconnaissance soil surveys of the Craig West belt with the result of locating two new showings designated the Gemini East and F 188. In addition a limited amount of prospecting was continued in the Craig East belt but did not locate any noteworthy zones of new mineralization.

Geophysical orientation surveys were conducted in late August on the West and Discovery showings employing horizontal-loop, magnetic and self-potential methods. Test work was applied essentially to a single-line traverse extending 1,000 feet either side of known mineralization. Following this, additional detail was obtained in early September with a self-potential survey on the West zone covering a section 4,000 feet in length and 1,500 to 2,000 feet in width. Frozen ground is likely to hinder both soil and self-potential surveys in mountainous sections of the property into the early part of July.

Formal surveys employing tellurometric equipment were undertaken in latter July to establish control stations at approximately 1½ mile intervals through the 20 mile length of the property. As well, all drill holes were referenced and control was provided for local base lines at the West, Discovery and Trent zones by this means.

Results of the geological, geochemical and geophysical surveys as well as coordinates for all drill holes and survey stations are given in the report Craig Property, Data Summary (Gifford, 1977).

GEOLOGY

The Craig property lies within the Dawson system of thrust faults which brings rocks of the Proterozoic assemblage into contact with those of Paleozoic age. Both the structure as well as the rock units trend eastward, and both assemblages are deformed by major open folds. The Proterozoic is host for the main deposits on the Craig.

Interest lies with two rock sequences of different character which outcrop along the north side of the Craig property and which are in fault contact with each other (Figure 4). One is the Craig East section of Hadrynian age,and features a dolomite unit which is host for the main silver-lead-zinc showings of the property. The other is the Craig West section of Ordovician-Silurian age, and features a cherty argillite unit which is host for silver-lead prospects also of interest (Floyd and Arnold, 1977, Appendix A). An east trending splay of the Dawson thrust system separates the two.

The important dolomite unit of the Craig East section lies within a sequence dominated by fine grained, dark coloured clastic rocks that are frequently cut by channels of coarser clastic material. A thin build-up of volcanic material occurs higher in the succession, and serpentinite and closely allied ferrodolomite form a narrow, conspicuous zone associated with the volcanic series. The grade of metamorphism for the assemblage is low, in the greenschist facies, and primary sedimentary features remain recognizable.

In general the dolomite trends N 70°W across the property and dips steeply, varying from northward at the Trent and Discovery to southward at the West zone. In detail its attitude along strike is modified by fold deflections occurring at broad intervals. Observations of the top facing of strata are uniform within local structural panels but are contradictory as a whole, and until local geometry is resolved the general superpostion at the West zone is taken to be upright and facing south based on a regional view.

The section underlying the dolomite is dominated by dark coloured argillite, and at the West zone is characterized by beds with spotted textures and minor but diagnostic amounts of nodular chert. The section overlying the dolomite is marked by argillaceous limestone that grades westward from interbedded limestone and argillite to mainly argillite, and again at the West zone is characterized by anastomizing partings within the limestone and by a distinctive unit of interlaminated carbonate and argillite in contact with the dolomite. Graphitic argillite and units of light-coloured talcose argillite occur either side of the dolomite but are more prevalent in the footwall section.

The dolomite unit links the Trent, Discovery and West showings through a distance of five miles. It varies in thickness from roughly 1,200 feet at the Trent, to 700 feet at the Discovery, to 200 feet at the West zone. At the West showing where data is more complete the dolomite is medium gray, commonly brecciated, and crudely partitioned into a massive lower section, mineralized central section and poorly laminated upper section. Stylolites are prevalent, and both vugs and pyrobitumen infillings are common.

The upper section frequently exhibits zebra structures. The lower section often contains quartz sand or is mottled in texture. It commonly forms a crackle-breccia which is distinctively filled with carbonaceous material.

The central section is poorly defined but appears to be characterized by a zone of oolitic dolomite which is underlain and overlapped by sections of carbonaceous dolomite. This carbonaceous section appears to mark the principal horizon of sulfide accumulation at the West showing.

The geologic succession for the property is summarized in Figure 2 and detail from drilling is provided in Figures 9-28.

STRUCTURE

A major, east-striking thrust fault is interpreted to extend through the twenty-mile length of the property and bring older rocks of Hadrynian age in contact with those of Ordovician-Silurian age. In the Craig East section the thrust lies in close proximity and to the north of the productive dolomite, and appears to lie roughly 1,200 feet distant at the Trent zone, 2,000 feet at the Discovery zone and 300 feet at the West zone.

The productive dolomite is modestly warped through its five mile length on the property apparently in concert with large-scale deflections in the major thrust. A significant offset to the dolomite occurs at departure 64,000 E near the Nadaleen zone, and it gives a left-hand shift of east side north.

The cross warps in the dolomite give a right-hand shift of east side south, and their principal inflection points occur approximately at the following departure positions: (1) 51,000 E, West zone; (2) 53,000 E, between the West and Azure zones; (3) 58,000 E, Discovery zone; and (4) inferred in the region of 72,000 E, between the Nadaleen and Trent zones.

At the West zone the dolomite appears to be further deformed by a significant drag fold of Z-form. This structure is inferred from drilling data in which sections of abnormal thickness in the dolomite occur, and it appears to have a shallow plunge to the west. It appears to be only weakly mineralized and perhaps some re-distribution of earlier sulfide into the limbs has occurred due to the deformation process. The inferred structure is analogous to a similar drag fold clearly exposed in a cirque one mile to the south which again is in close proximity to a thrust fault.

Internal to the dolomite at the West zone are lesser drag folds which incorporate bands of massive sulfide, that are observed on surface at the main West showing. The massive sulfide occurs in at least two bands, each about 2 to 3 feet thick, and is isoclinally folded with a near-horizontal plunge.

Post-ore faulting disrupts the main ore zone at the West showing as evidenced in DDH C77-4 and 15. In this case the displacement of the ore section is significant but its magnitude remains to be determined. In addition drill hole data gives evidence of further faulting in the hangingwall and footwall units which border the main dolomite, and in this case the geometry again is not ascertained.

MINERALIZATION

Dolomite forms the principal host to important sulfide mineralization on the property, and brecciated zones in the dolomite form the principal sites of sulfide accumulation. Sphalerite and subordinate galena are the major sulfides present. Pyrite and tetrahedrite occur in minor amounts, chalcopyrite is seen occasionally and silver forms an important but minor constituent. Smithsonite and hydrozincite are common in the zone of oxidation. Realgar and orpiment are seen occasionally at the Trent showing. Sparry dolomite and quartz are the chief gangue minerals present.

The sulfide texture is generally medium to coarse grained but a fine-grained 'steel' galena is sometimes locally developed. The sphalerite coloration is generally pale brown (5YR5/2) to moderate yellowish brown (10YR5/4).

Galena is relatively abundant at the West showing whereas sphalerite is predominant at the Trent and Discovery showings. Pyrite occurs in greater abundance at the Discovery.

Breccia, zebra, stylolite and vug structures are prevalent in the mineralized section and attest to a period of pronounced and widespread solution of the productive dolomite. Base-metal sulfides are associated with all of these features but the principal traps are the breccia and zebra structures. Sparry dolomite is the dominant filling in the main traps, and sulfide is concentrated particularly in the breccias. Silicic alteration tightly envelopes the main horizon of sulfide deposition and alters the wallrock of both dolomite (medium gray) and carbonaceous dolomite (grayish black). At the well-documented West showing, carbonaceous dolomite which is brecciated and silicified forms the principal host.

The characteristics of the breccia masses suggest they result largely from solution-collapse rather than tectonic processes. These include the following:

(1) Breccia development is confined to the carbonate unit, and is widespread through the property in a variety of structural settings.

(2) Fragments consist of wallrock lithology. They include: oolitic dolomite, sandy dolomite, laminated dolomite, silicified dolomite, silicified carbonaceous dolomite and crackle-brecciated dolomite from the lower section.

(3) Fragments are subangular in outline, range up to boulder-size and sometimes occur as fine-rock matrix which is interstitial to the larger blocks. Comminuted material is absent. Re-brecciation with associated sulfide filling occurs at the Trent showing.

(4) Breccia bodies appear to be irregular in outline, and appear to have a worm-like form that lacks regular planar definition.

Sulfide replacement of breccia fragments is commonly evident, and thick replacement bands of massive sulfide form an important element of the West deposit. Possible cave fillings of heavy sulfide occur at the Discovery as in DDH C77-23/105'.

A notable zone of fracturing is conspicuously associated with the main dolomite through the length of the West zone. The fracturing is pervasive, largely confined to the central and upper sections of the dolomite, has an open framework and is filled primarily with sparry dolomite and/or quartz. Minor amounts of galena and sphalerite are sometimes present.

The fracturing, as well as the main breccia host, is decidedly later than the crackle-breccia which distinguishes the structure of the lower-section dolomite. However, relationships between the fracturing and the main breccia are less clear, and it may be that the two structures are related. Zones of open framework fracturing with a filling which generally reflects the host lithology, i.e. calcite filling in limestone host and quartz filling in siliciclastic host, are much less evident in the wallrock sections which border the main dolomite.

ORE

At the West zone, grid drilling encountered good grade material with good continuity through substantial width and extent. Dimensions of the deposit are as follows: (1) slope length of 1,400 feet, (3) average horizontal thickness of 39 feet, (3) width of 200 feet for a section which extends downward from surface and subparallel to the slope with a vertical range of approximately 400 feet, and (4) dip of $\pm$ 75° south. The drill inferred tonnage for this panel, as derived from C77-1,3, 4,5,6 and 15 is approximately 1,000,000 tons grading 8% Pb, 13% Zn and 3 oz/T Ag (Figure 8).

The possibility remains for development of additional tonnage on the basis of the following extrapolations: (1) to the east, as indicated by the strong sulfide section in C77-18 and the anomalous self-potential results; (2) to the west, as suggested in C77-9 by encouraging values and presence of silicic alteration which could mark an important channelway; and (3) down the dip, as seen by the continued presence of brecciated dolomite and the encouraging values in C77-11 which gave 2.1% Pb, 35.4% Zn and 2.64 oz/T Ag for 12 feet. Occurrences of silicic alteration which are associated with limestone in the Hangingwall Series are found in C77-24 and 28 and remain to be investigated.

To give some indication of possible scope it is conceivable that the West deposit could be extrapolated to some 700 feet below surface, i.e. one-half of its strike length, and then this size could be applied to permissive areas on strike to the east and to the west of the main zone. Conjecturably this would provide in the order of 10 million tons of potential ore attributable to the West area.

At the Discovery zone, grade and widths obtained in scout drilling were attractive but continuity was not established. For example: (1) C77-19/97 - 117' gave 1.5% Pb, 22.2% Zn and 0.78 oz/T Ag for 20 feet; (c) C77-23/82 - 97' gave 6.2% Pb, 11.2% Zn and 1.58 oz/T Ag for 15 feet; and (3) C77-27/92 - 103' gave 6.0% Pb, 8.9% Zn and 1.83 oz/T Ag for 11 feet. Outcrops of mineralized breccia are seen to both crosscut and subparallel stratigraphy. An impression is gained for the main brecciated zone that its outline is that of a ragged channel which is largely crosscutting but from place to place blossoms subparallel to the bedding. An analogy could be drawn with the percolation zone of a karst system.

At the Trent zone, again both grade and widths in scout drilling were locally attractive but continuity was not established. For example: (1) C77-17/15 - 24' gave 6.6% Pb, 34.8% Zn and 2.05 oz/T Ag for 9 feet, and (2) C77-17/152 - 174' gave 1.6% Pb, 20.3% Zn and 0.35 oz/T Ag for 22 feet. The mineralized zone has an apparent width in the order of 200 feet, and carried generally minor values in lead and zinc.

Sulfides on the property in general are moderately to severely oxidized to depths of roughly 100 feet below surface. In this zone drill hole intersections are often severely pitted, and some values possibly have been flushed away by drilling water. The ratio of silver to lead through the extent of the property, including limited data for Craig West, is in the order of Ag:Pb = 0.2 to 0.4. Higher exceptions occur at C77-5, 9 and 11 in the West zone.

GEOCHEMISTRY

Soil surveys in the Craig East area covered the main belt from the West to the Trent showing. The western portion was mountainous, well drained, and thinly mantled with overburden. The remaining portion lay within a broad valley, was poorly drained, and was covered in the vicinity of Nadaleen River with thick overburden. A scree of barren shale sometimes effectively masks response from the main belt.

Strongly anomalous values in silver-lead-zinc clearly mark the principal mineral showings in the belt. In addition the survey located two anomalies of strong interest which are untested. They are: (1) Azure map 57,200E 40,000N, anomalous for 2,000 feet in the section between Azure and Discovery showings, and (2) Discovery map 64,900E 37,300N, likely the westward extension of the Nadaleen showing.

Three other locations with modest geochemical response are worthy of review. They are: (1) Azure map 52,800E 40,700N, (2) Nadaleen map 68,000E 35,400N, and (3) Trent map 74,000E 32,400N.

Geochemical indication of the belt was not obtained in the area immediately west of the Nadaleen River. This appears to be contrary to its general expression and may be the result of deep overburden or may reflect a structural shift in the key zone.

In the Craig West area reconnaissance soil sampling led to the location of the Gemini East and F188 zones of lead-silver mineralization (Floyd and Arnold, 1977). Detailed gridding in this region outlined further anomalies of lower rank which remain to be followed up.

GEOPHYSICS

Orientation surveys employing self-potential, H.E.M. and magnetic methods were conducted over the West and Discovery showings. The S.P. unit provided a clear response directly associated with massive sulfide at the West showings. Neither the H.E.M. or magnetic methods showed any definite response to the sulfide zone.

A self-potential grid covering part of the West zone followed the orientation work, and results are shown in the Craig Property, Data Summary report (Gifford, 1977). Five anomalies are of interest:

(a) Anomaly SP930-4 is directly associated with the occurrence of strong mineralization within the Main Dolomite, and was traced 1,200 feet on an east trend.

(b) Anomaly SP930-5 was traced southeasterly for 2,000 feet and may be the continuation of SP930-4. The feature offers interest and additional evaluation is required.

(c) Anomaly SP930-1 was traced easterly for 2,100 feet and may be associated with a major dyke as indicated by mapping, or a major fault as suggested by the strength and continuity of response.

(d) Anomalies SP930-2 and SP930-3, traced easterly for 600 feet and 1,100 feet respectively, appear to be expressions of the same body, and possibly again are associated with a dyke that appears in mapping.

As an alternative the anomalies, other than SP930-4, also could be attributed to response from units of graphitic, pyritic argillite which occur in the section. However, support for such correlation is not apparent in the extrapolation of detail from drilling.

DISCUSSION

The property is located at the basinward edge of a carbonate platform lying to the north. At the property, shallow-water marine clastics are dominant and reflect deltaic conditions in which channels of quartz-pebble conglomerate meander through a succession of fine-grained argillaceous sediments. Deposition within this of the thin, productive carbonate section would have occurred during a cessation of detrital sedimentation in an otherwise primarily detrital environment, for example in those conditions which would be associated with a barred sub-basin.

Local conditions of higher energy level are evidenced at the West zone by deposition of quartz sand and oolites during carbonate sedimentation. The oolite section in particular reflects deposition in shallow, agitated water. Between the oolite and sandy section is the mineralized section of carbonaceous dolomite. Its origin is obscure and may relate to a lull in carbonate deposition, or to a period of karstification of the dolomite.

Supporting evidence for a shallow marine environment during deposition of the host sequence include the following: (1) quartz sand basally in the main dolomite, (2) oolites centrally in the main dolomite, (3) mat-like lamination in the upper part of the main dolomite, (4) wispy lamination in the hangingwall limestone, and (5) interfingering gray, green and red shales in both the hangingwall and footwall series.

A distinctive section marked by thin alternations of limestone and argillite occurs immediately in the hangingwall side of the main dolomite. This marker serves locally for correlation in the main part of the West zone, and appears to correlate with a similar section somewhat further to the west in the area explored by DDH C77-9 and 10. It also may correlate with similar but broader alternations located a few miles to the east at the Discovery showing.

The age of geologic units along the belt of interest is not established with certainty, and present opinion reflects that of preliminary studies by Dr. S.L. Blusson, Geological Survey of Canada. Alternatives to consider include the following:

(1) Present opinion; the section which includes the productive carbonate unit and the volcanic series of the property is inferred to be Hadrynian in age.

An additional suite which includes fossiliferous limestone immediately on strike to the west of the West showing, and bedded chert in surface exposures nearby to the north of the showings is considered diagnostic of an Ordovician-Silurian age. The Ordovician-Silurian carbonate is inferred to be separated from its neighbouring West zone carbonate by an east-striking thrust fault.

(2) Alternative; the sequence which includes the productive carbonate and the volcanics can be inferred to be Ordovician-Silurian in age.

The two thin carbonate units represented by the Ordovician-Silurian limestone and the West Zone dolomite are in close proximity to each other, are each housed in a dominantly fine-clastic assemblage, and are exactly on strike with each other. It can be inferred that the two carbonates represent the same formation, and therefore the West Zone dolomite is Ordovician-Silurian in age. Further on this premise, it can be inferred that the volcanic series is Ordovician-Silurian in age based on the close association of sandstone, quartz-pebble conglomerate, and red and green argillites with both the productive dolomite and the volcanic series. Until relationships are clearly established the implications associated with the productive host being Paleozoic in age should be investigated.

(3) Additional relationships; the ferrodolomite and closely associated serpentinite, which may represent the alteration of an ultramafic sheet emplaced along a plane of crustal weakness, is inferred to be Paleozoic or older in age. Ferrodolomite clasts are observed to occur in an argillaceous conglomerate overlying the volcanic series. It is inferred that the conglomerate which post-dates the ferrodolomite and formed after development of the volcanic series, either relates to the enclosing rocks which are inferred to be Hadrynian in age, or it relates with structural complication to a nearby unconformity of apparent Devonian-Mississippian age.

As a general class the Craig lead-zinc deposits appear to be of the carbonate-hosted Mississippi Valley type which are strata-bound, were emplaced after lithification of the host rock, and were largely controlled by pre-ore structures. In general terms the Craig deposits are spatially related to the basinward edge of a carbonate platform, to a shallow marine environment which is dominated by fine-clastics, to a major unconformity of Devonian-Mississippian age, to a centre of minor volcanic activity,to a minor swarm of intermediate dykes, and to a regional thrust fault. Major bodies of plutonic rocks are absent.

In detail the deposits are principally controlled by breccia structures developed in a dolomite host (Figure 3). The principal accumulations of sulfide are closely associated with a siliceous envelope. Widespread alteration of any kind is not associated with the deposits, nor is there any apparent association with nearby faults that could be identified by such features as sulfide dispersion, vein fillings or damming effects. Sphalerite with subordinate galena forms the major sulfide present. Silver values are significant but they are not dramatic either in spot highs or in Ag:Pb ratios. Replacement of host rock is commonly evidenced and is an important feature in that sulfide accumulations are not therefore restricted solely to the amount of open space available.

The solution-collapse structures which form the main host to mineralization could result from processes which include: (1) karstification, (2) compaction fluids migrating from a Hadrynian sedimentary basin, (3) fluids related to deep-seated sources, and (4) circulating fluids related to thrust fault dynamics. Either of the first two processes result in a similar

style of deposit and are considered to be more feasible than the latter two on the basis of simple mineralogy, lack of severe alteration, and extensive development of the same kind of breccia in a variety of structural settings. A karstic model for ore accumulation is suggested over one involving compaction fluids due to the apparent lack of an associated metal-rich shale basin for the Hadrynian assemblage. A re-concentration of sulfides may be associated with subsidiary structures that are related to the major thrust fault.

A further model which may be considered is that of compaction fluids migrating from a Paleozoic sedimentary basin. This premise would be lithologically attractive but it requires the assignment of a Paleozoic age to the Craig host rocks which in present opinion is unacceptable.

Assuming that the karstic model is valid for the Craig East deposits then mineralization could be associated with areas in which there is deep encroachment of the Devonian-Mississippian unconformity into the Hadrynian sequence. Of interest, the unconformity is considered to be present south of the West zone as determined from thick deposits of chert-pebble conglomerate which are viewed as diagnostic of a Devonian-Mississippian age. This unconformity rests near the top of the volcanic series at departure 50,000E and appears to nearly breach the series at 54,000E in the Azure area. At this point it is close to the hangingwall section which overlies the productive dolomite.

CONCLUSIONS AND RECOMMENDATIONS

1. Development of the property in 1977 demonstrated that it is capable of providing significant tonnage and commercially important grade.

2. Mineralization is mainly contained in a basin margin carbonate of assumed Hadrynian age occurring within a sequence dominated by shallow marine clastics. It is governed by breccia structures within a dolomite host, and a carbonaceous horizon appears to localize the sulfide deposits.

3. The breccia appears to be primarily of solution-collapse origin, and karstic or compaction fluid processes may have controlled the accumulation of ore in this trap. A nearby thrust fault may have exerted some influence on ore deposition and perhaps was influential in the re-concentration of earlier sulfides. Silicic alteration is closely associated with and narrowly confined to the main sulfide zone.

4. Projection of drill inferred reserves coupled with consideration of prospective ground suggests the property has potential for medium to large tonnage with good grade and amenable milling characteristics. On balance the steep dip and possible irregular configuration of the deposits is expected to complicate exploration for ore. The remote location contributes greatly to adverse economics for the property under present conditions.

5. The property responded favorably to intial development and continued exploration is warranted. Investigation in the next stage should include the following:

(i) West zone; explore the eastward extension indicated by self-potential results. Proposed work: step-out drilling to total 1,000 feet in two holes.

(ii) Discovery and Nadaleen areas; follow-up of strong geochemical results. Proposed work: trenching, self-potential surveys and contingent drilling to total 1,000 feet in two holes.

(iii) Scott and Gemini East area; follow-up of new showings. Proposed work: geology, trenching and possible application of portable percussion-type overburden drill.

R.G. Gifford, P.Eng.

December, 1977

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Floyd, A. and Arnold, R.W.
1977: Craig West, Geology and Geochemistry; McIntyre Mines Limited, Summary Report.

Floyd, A. and Birkeland, A.O.
1976: Craig Claim Group; McIntyre Mines Limited, Summary Report.

Gifford, R.G.
1977: Craig Property, Data Summary; McIntyre Mines Limited, Summary Report.

APPENDIX A

CRAIG WEST AREA

SUMMARY REPORT, 1977

by

A. Floyd and R. Arnold

December, 1977

TABLE OF CONTENTS

ILLUSTRATIONS

APPENDIX A

CRAIG WEST AREA
SUMMARY REPORT, 1977

by
A. Floyd and R. Arnold

GEOLOGY, CRAIG WEST

The geology of the Craig West comprises essentially the same Hadrynian section as that found in other areas of the property. However, it appears to be far less complicated.

The "grit unit" displays interesting conformity throughout much of the map area. A thick section of "grits", which predominate south of the claims, are composed of fine to coarse grained sand in a calcareous to siliceous matrix becoming less calcareous and finer grained to the south. Thinly bedded grey shales (often appearing as shale partings) and very minor carbonate beds occasionally contaminate the sequence. A deep valley separates the "grits" from the rest of the Hadrynian section.

A carbonate sequence extending the length of the map area varies from interbedded buff and grey weathering, light brown and gray coarsely crystalline dolomites and limestones to cliff forming grey limestones in the west. Black chert pebbles and minor interbedded purple and grey shales occur towards the top of this limestone unit. Shales or mudstones predominate thoughout the remainder of the Hadrynian section interbedded with occasional grits and minor limestone.

Volcanic related or altered rocks occur in the sequence. Altered mafic flows(?) or metamorphosed ultramafic bodies appear as serpentinite. These non-resistant greasy, dark green to black serpentinized bodies are usually coincident with resistant orange to rust weathering, light brown, ankeritic dolomites which display variable textures from breccias with coarse grained interstitial sparry dolomite to large pebble conglomerate types. Total thickness of these two units varies dramatically from ridge to ridge with complete absence of the serpentinized body on the two most westerly ridges and a twenty foot thick interbedded ferrodolomite and limestone interval occurring on the most westerly ridge only.

North of the thrust, mudstones of Ordovician to Devonian age (Road River Formation) are encountered. These mudstones are dark grey to black and are distinguished from the overlying unconformable Canol mudstones (Upper Devonian) by the presence of dark grey to black bedded cherts.

Mineralization, in the Road River, is related to bedded chert or cherty argillite and is possibly derived from the metal-rich shales of the Canol Formation. In general galena, rich in silver, sphalerite and smithsonite appear to be somewhat sporadic with concentrations in fractures and vein fillings.

Structurally, bedding strikes from east to east south east and dips 20^{o} to 35^{o} throughout. The thrust seems to be of a very low angled nature due to the absence in creek cuts of some marker beds, notably the serpentinized bodies. Minor anticlinal-synclinal structures do occur and are noted on the geology map.

SILT GEOCHEMISTRY, CRAIG WEST

An analysis of the 1976 silt data for the area west of the West Zone showed several strong anaomalies in the Ordovician and Devonian shales that were worthy of follow-up. The anomalies were strongest in small side creeks originating in the shales whilst the larger creeks originating further up the section in the "grit" unit, usually gave background values.

It was concluded that sufficient silt sampling had been carried out in 1976 and that work would concentrate on follow-up soil sampling.

SOIL GEOCHEMISTRY, CRAIG WEST

Geological reconnaissance of the belt of Ordovician to Devonian shales west of the West Zone which contained strong silt anomalies provided a target for follow-up soil sampling.

Soil sampling traverses were laid out to cover the units at the base of the grit unit and the Ordovician - Devonian shale package above the first Ordovician - Devonian carbonate. The sampling was restricted to the ridges which provided the best development of residual soils. Sampling elsewhere in a similar environment suggested dispersion was usually good enough to allow a sample interval of 200 ft.

The sampling was carried out by two field assistants using mattocks and measuring the distances with a hip chain. Only sample sites were flagged and marked using an initial, -month, - day, - sample number system. The samples were dried and sieved in the field preparation unit and then shipped to Chemex Labs in Vancouver for analysis for lead, zinc and silver. The results were plotted on histograms for each separate element so that the background population could be determined easily and threshold values picked off by inspection.

Coincident strong lead, zinc and silver anomalies were deemed the most likely to lead to the location of mineralization whilst strong zinc and silver anomalies were probably caused by shales rich in zinc and silver.

Follow-up detailed prospecting led to the location of several new showings just west of the Scott Zone. The mineralization was found by follow-up of one sample anomaly which ran 1960 ppm Pb, 1920 ppm Zn and 6.8 ppm Ag.

As a result of this work a detailed grid was put in running from the Scott Zone ridge across the new-find ridge designated Gemini East to the next ridge designated Gemini West. Lines 500' apart were run NS using a 200' sample interval off an EW base line. Several anomalies were located by this sampling but were not followed-up.

The intial ridge sampling located several other weaker anomalies but only very minor lead-zinc mineralization usually associated with quartz veining was found.

If the mineral showings on the Scott Zone ridge and the Gemini East ridge are significant, it may be necessary to expand the detailed grid on the length of the property but if this was the case, cut lines would have to be used in order that good control could be maintained.

MINERALIZATION, CRAIG WEST

Scott Zone:

Prospecting in 1976 outlined a small area of lead-zinc mineralization in the Ordovician - Devonian shales. Galena $\pm$ sphalerite occurs in limy breccias interbedded with the shales. Quartz veining is common and associated with the mineralization whilst in places the galena is quite massive with a granular texture. Grab samples taken in 1977 assayed 66.1% Pb, 0.59% Zn and 21.84 oz/ton Ag.

Gemini East:

The mineralization on this ridge was found during the follow-up of the ridge soil sampling. Massive granular galena is found in fractures and veins in and below a cherty argillite member which forms a pronounced feature crosscutting the ridge. The talus for the exposure forms a subtle "kill" zone upon which only stunted trees and buckbrush grow. Grab samples for the area ran 70.2% Pb, 2.53% Zn and 40.53 oz/ton Ag. As with the Scott Zone the mineralization appears erratic and associated with fractures.

F 188:

Further to the west close to the "grit unit"-ODR contact minor galena mineralization associated with quartz veining was found during a geological mapping traverse. Disseminated galena occurs in a quartz carbonate gangue as float on a small talus slope. The host rock is brown-black graphitic shales which in turn is overlain by a white weathering black shale.

Following the unit along strike failed to locate any further substantial mineralization. Only minor galena in quartz vein float was located.

Barite Showings:

Close to the western extremity of the Craig claims several outcrops of bedded barite were located which contained minor amounts of sphalerite. The barite is impure but is a distinct unit within the black shale package. The unit is first seen at F 189 and then further to the west as F 207. It then continues on to the adjoining Cooker claims where it is next seen as F 205. It forms kill zones which assist in its location. Only buckbrush will grow on it so that it appears as a bare area within the trees.

As yet no samples have been taken to establish the purity of the barite but visual estimates are probably 60% barite, 40% calcium carbonate.

Potential for More Showings:

More showings similar to the Scott Zone and Gemini East are likely to be found if a more detailed soil grid was put in but first the significance of the Scott Zone type showings would have to be established.

A. FLOYD

R.W. ARNOLD

LEGEND

INTRUSIVE
- intermediate dykes, sills

DEVONIAN - MISSISSIPPIAN
- chert, chert-pebble conglomerate

ORDOVICIAN - SILURIAN
- argillite, chert beds
- limestone; fossiliferous

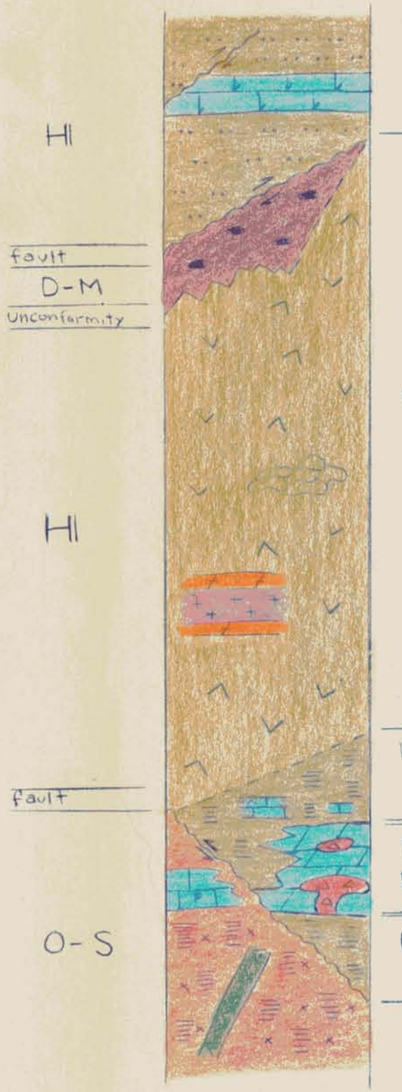
HADRYNIAN
- argillite, quartz-pebble conglomerate
- limestone, minor dolomite

VOLCANIC SERIES
- Volcaniclastics, argillite
- pillow lava
- serpentinite, ferrodolomite

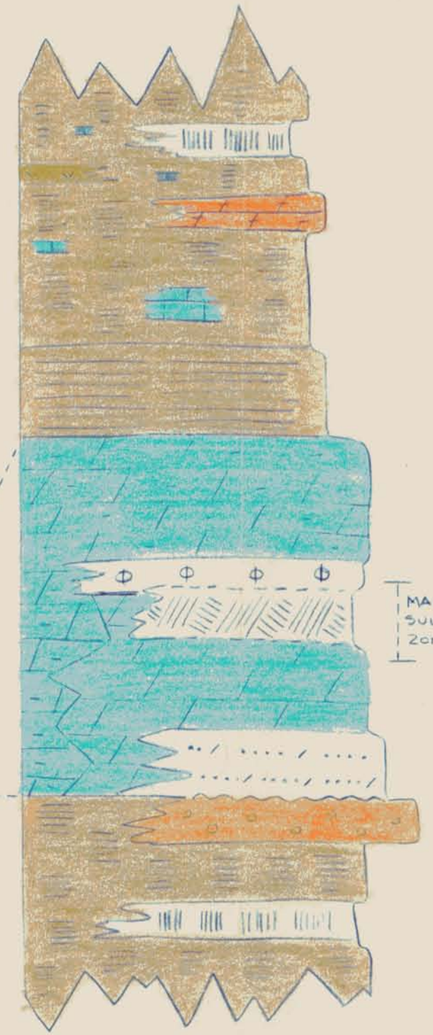
HANGINGWALL SERIES
- argillite, limestone; frequently graphitic, rare chert nodules
- argillite; greenish-gray, dusky red
- ferrodolomite
- Hangingwall Laminate; alternating carbonate and argillite

MAIN DOLOMITE
- laminated zone
- oolite zone
- carbonaceous zone
- massive zone; weakly carbonaceous
- sandy zone; often crackle-brecciated with carbonaceous filling
- breccia

FOOTWALL SERIES
- argillite; frequently graphitic, minor chert nodules
- conglomerate; minor chert pebbles
- argillite; greenish-gray, dusky red



GENERAL



WEST ZONE

UPPER SECTION

CENTRAL SECTION

LOWER SECTION

MAIN DOLOMITE 100 - 300'

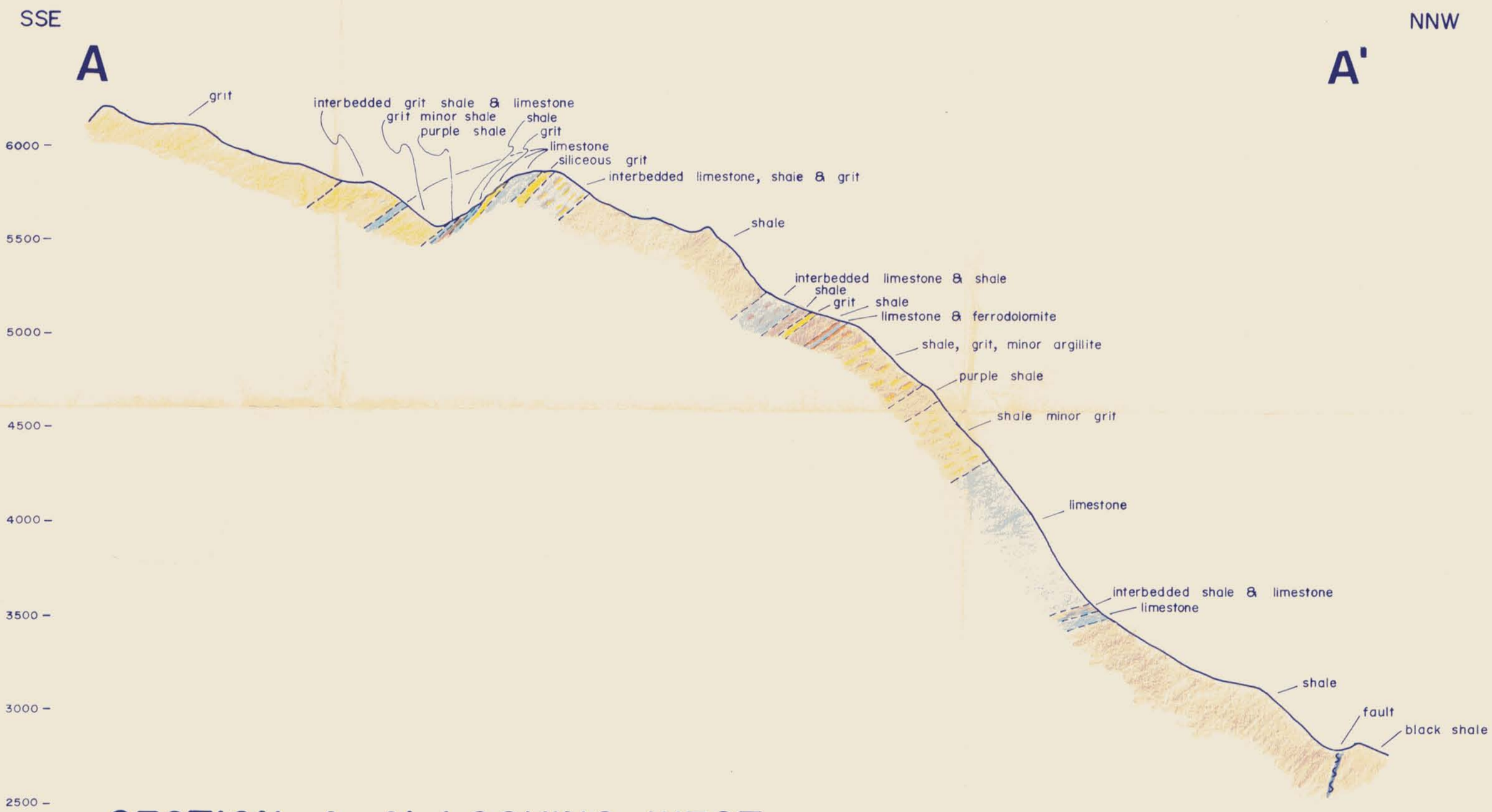
FIGURE 2

McINTYRE MINES LIMITED

CRAIG PROPERTY

IDEAL SECTION

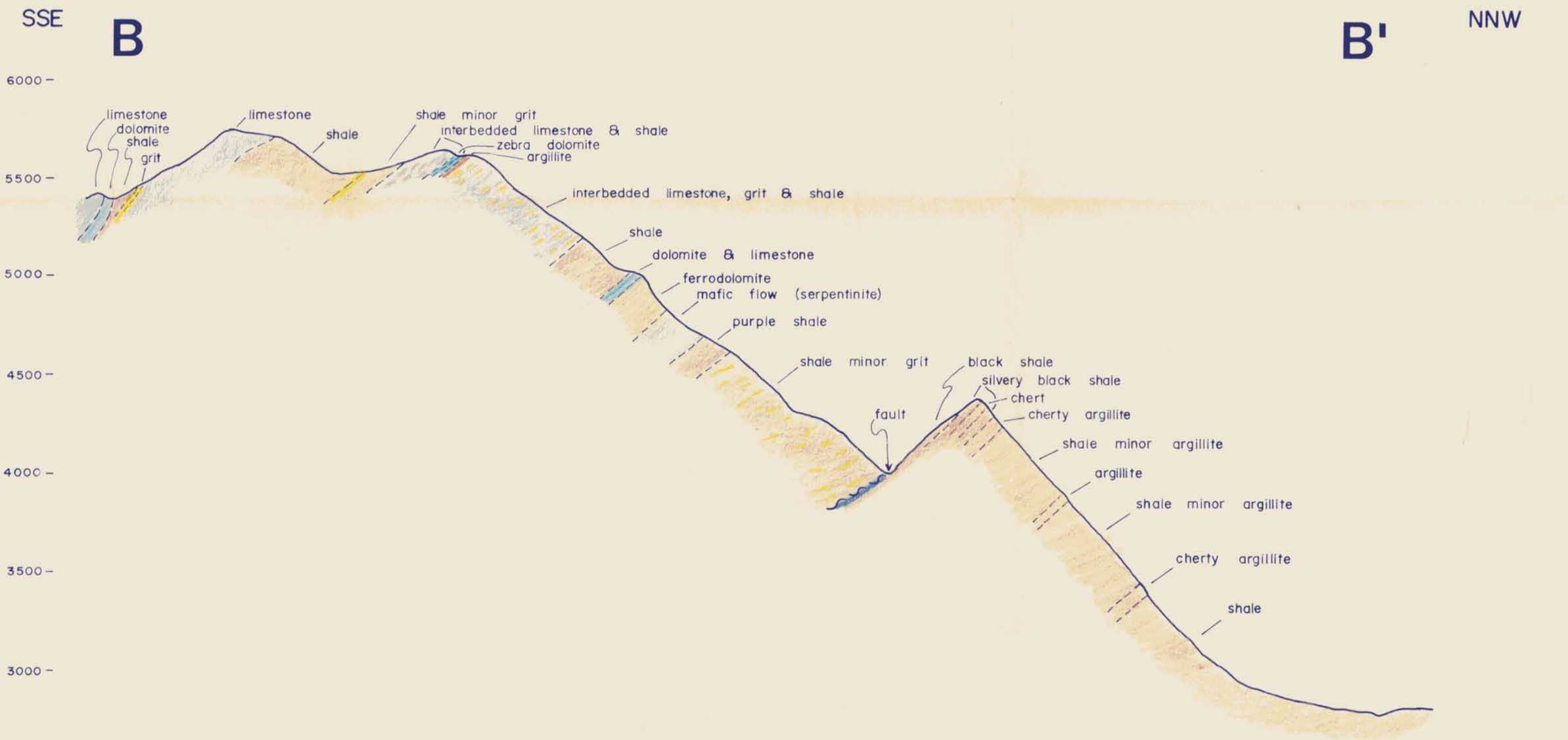
WORK BY RGS	DATE: [illegible]
DRAWN BY [illegible]	N.T.S.



SECTION A-A', LOOKING WEST

See Geology, West Sheet for location

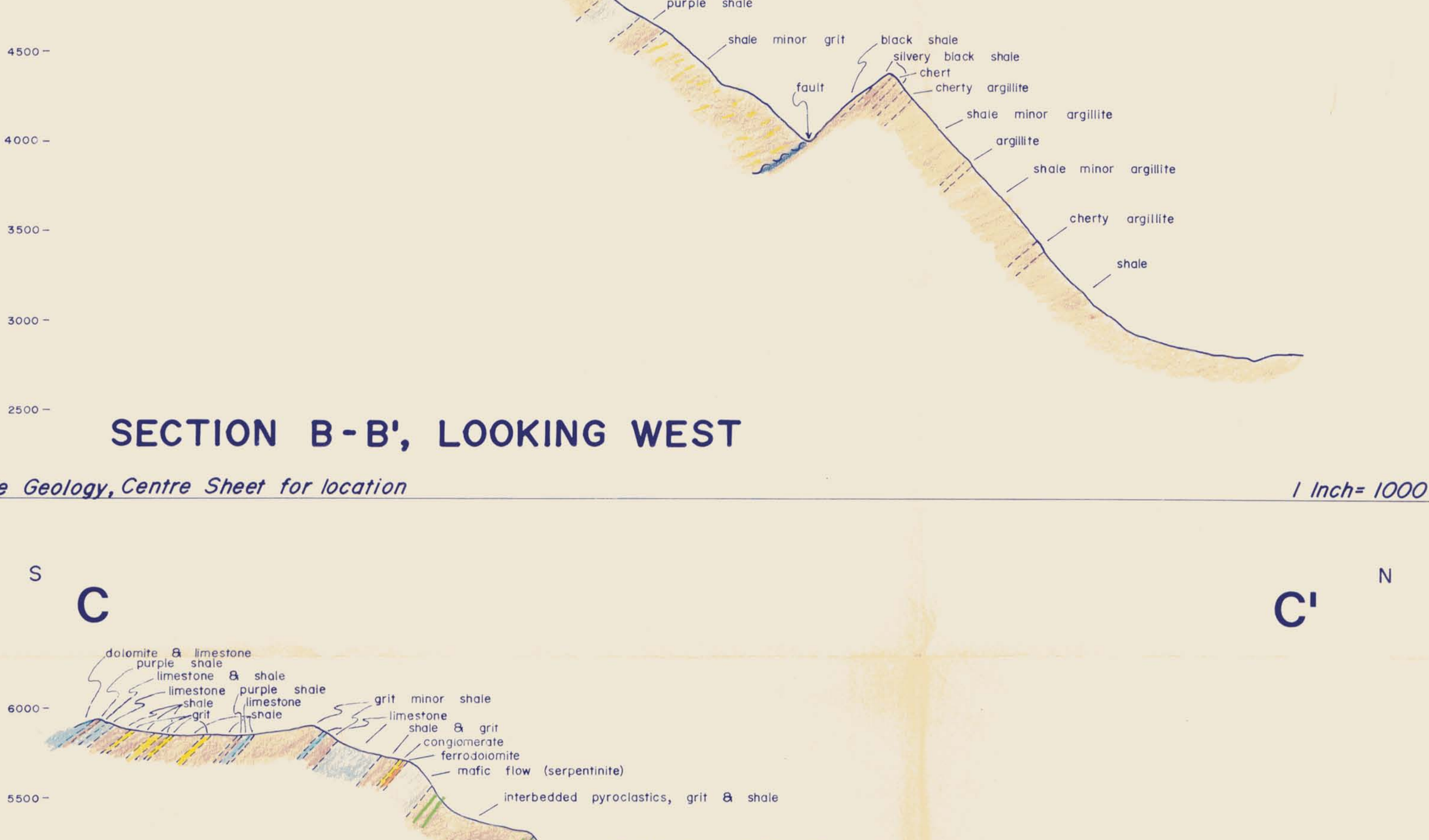
1 Inch = 1000 Feet



SECTION B-B', LOOKING WEST

See Geology, Centre Sheet for location

1 Inch= 1000 Feet



SECTION C-C', LOOKING WEST

See Geology, Centre Sheet for location *1 Inch = 1000 feet*

CRAIG CLAIMS

GEOLOGIC SECTIONS

drawn by: R. ARNOLD. map no. C7G 9-4

R Arnold

Figure 5a

LEGEND

DEVONIAN

- CHERT: black to gray;
  - (a) Chert-pebble conglomerate,
  - (b) Argillite, black.

ORDOVICIAN - SILURIAN

- ARGILLITE: black, fissile; dark gray to black weathering;
  - (a) Chert beds in part, black,
  - (b) Silvery weathering argillite,
  - (c) Interbedded silvery weathering argillite and black chert.
- LIMESTONE: medium gray, locally fossiliferous.

HADRYNIAN

- PYROCLASTIC ROCKS: intermediate composition, grayish olive green;
  - (a) Tuff, volcanic breccia,
  - (b) Tuff.
- MAFIC FLOWS: greenish black, pillows locally.
- LIMESTONE: argillaceous, medium light gray to dark gray;
  - (a) Argillite interbeds, dark gray to black,
  - (b) Minor dolomite; light brown weathering, some chert in nodules and narrow bands.
- DOLOMITE: medium gray;
  - (a) Brecciated in part.
- QUARTZITE, CONGLOMERATE: usually argillaceous, medium dark gray to dark gray;
  - (a) Conglomerate, some ferrodolomite clasts.
- ARGILLITE, SUBORDINATE SILTSTONE: medium dark gray to black, some medium gray;
  - (a) Black argillite,
  - (b) Greenish-gray and/or dusky red argillite,
  - (c) Chert, siliceous argillite.
- SERPENTINITE: greenish black to brilliant green.
- FERRODOLOMITE: moderate reddish brown weathering, quartz seams common, some chert patches.
- DIABASE: dykes and/or sills.
- BRECCIA
- SILICIC ALTERATION
- GALENA, SPHALERITE:
  - Strong
  - Moderate
  - Weak
  - (Ag) Realgar
  - (Ba) Barite

- Float Locality
- (F) Fossil Locality
- Contact (approximate, inferred)
- Fault (approx., inferred)
- Thrust Fault (approx., inferred)
- Bedding
- Foliation
- Minor Fold
- Lineation

Top direction, determined from:
- cb - cross-bedding
- fs - flame structures
- rm - ripple marks
- sc - scour structure
- tb - truncated bedding

LIMESTONE
ARGILLITE
MAINLY ARGILLITE, SILTSTONE
MAINLY QUARTZITE, CONGLOMERATE
FERRODOLOMITE, SERPENTINITE
8a,b,c
8c, minor 8a
A'

2000 1000 0 1000 2000 FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - WEST SHEET

GENERAL GEOLOGY

Drawn by: R.T. Falck	Revisions:	Map No.:
Work by: R. ARNOLD		079 9-1
Date: JULY, AUGUST, 1977		Figure: 5
Scale: 1 in. = 1000 feet		Project No. 12008

55,000 N
50,000 N
45,000 N
40,000 N
35,000 E
30,000 E
25,000 E
20,000 E
45,000 E
50,000 E
55,000 E

EAST RACKLA RIVER

B'
C'
A
B
C

LIMESTONE
ARGILLITE, CHERT
ARGILLITE
FERRODOLOMITE, SERPENTINITE
LIMESTONE
thin dolomites
O-S ARGILLITE, CHERT
DIABASE
MAINLY ARGILLITE
MAINLY FERRODOLOMITE, SERPENTINITE, VOLCANICLASTICS
DOLOMITE
MAINLY ARGILLITE
LIMESTONE, ARGILLITE
D-M CHERT, ARGILLITE

SCOTT ZONE
GEMINI EAST ZONE
WEST ZONE
AZURE ZONE

8a
8a, 8c
8b
8a minor 8c
8c
6b

LEGEND

DEVONIAN

CHERT: black to gray;
(a) Chert-pebble conglomerate,
(b) Argillite; black.

ORDOVICIAN - SILURIAN

ARGILLITE: black, fissile; dark gray to black weathering;
(a) Chert beds in part, black,
(b) Silvery weathering argillite,
(c) Interbedded silvery weathering argillite and black chert.

LIMESTONE: medium gray, locally fossiliferous.

HADRYNIAN

PYROCLASTIC ROCKS: intermediate composition, grayish olive green;
(a) Tuff, volcanic breccia,
(b) Tuff.

MAFIC FLOWS: greenish black, pillows locally.

LIMESTONE: argillaceous, medium light gray to dark gray;
(a) Argillite interbeds, dark gray to black,
(b) Minor dolomite, light brown weathering, some chert in nodules and narrow bands.

DOLOMITE: medium gray;
(a) Brecciated in part.

QUARTZITE, CONGLOMERATE: usually argillaceous, medium dark gray to dark gray;
(a) Conglomerate, some ferrodolomite clasts.

ARGILLITE, SUBORDINATE SILTSTONE: medium dark gray to black, some medium gray;
(a) Black argillite,

SERPENTINITE: greenish black to brilliant green.

FERRODOLOMITE: moderate reddish brown weathering; quartz seams common, some chert patches.

DIABASE: dykes and/or sills.

BRECCIA

SILICIC ALTERATION

GALENA, SPHALERITE;
Strong (As) Realgar
Moderate (Ba) Barite
Weak

Float Locality

Fossil Locality

Contact (approximate, inferred)

Fault (approx., inferred)

Thrust Fault (approx., inferred)

Bedding — Minor Fold

Foliation — Lineation

Top direction, determined from:
cb - cross-bedding
fs - flame structures
rm - ripple marks
sc - scour structure
tb - truncated bedding

2000 1000 0 1000 2000 FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - CENTRE SHEET

GENERAL GEOLOGY

Drawn by: R.T. Falck	Revisions	Map No. C79 9-2
Work by: R. ARNOLD, R. GIFFORD, W. KILBY		Figure 6
Date: JULY, AUGUST, 1977		
Scale: 1 inch = 1000 feet	Project No. 12008	

AZURE ZONE

DISCOVERY ZONE

NADALEEN ZONE

TRENT ZONE

DIABASE

MAINLY ARGILLITE

QUARTZITE, CONGLOMERATE

LIMESTONE

DOLOMITE

MAINLY ARGILLITE

LIMESTONE, ARGILLITE

MAINLY ARGILLITE

MAINLY FERRODOLOMITE SERPENTINITE, VOLCANICLASTICS

MAINLY DOLOMITE

MAINLY FERRO DOLOMITE

NADALEEN RIVER

LEGEND

DEVONIAN

- CHERT: black to gray;
  - (a) Chert-pebble conglomerate,
  - (b) Argillite; black.

ORDOVICIAN - SILURIAN

- ARGILLITE: black, fissile; dark gray to black weathering;
  - (a) Chert beds in part, black,
  - (b) Silvery weathering argillite,
  - (c) Interbedded silvery weathering argillite and black chert.
- LIMESTONE: medium gray, locally fossiliferous.

HADRYNIAN

- PYROCLASTIC ROCKS: intermediate composition, grayish olive green;
  - (a) Tuff, volcanic breccia,
  - (b) Tuff.
- MAFIC FLOWS: greenish black, pillows locally.
- LIMESTONE: argillaceous, medium light gray to dark gray;
  - (a) Argillite interbeds, dark gray to black,
  - (b) Minor dolomite, light brown weathering, some chert in nodules and narrow bands.
- DOLOMITE: medium gray;
  - (a) Brecciated in part.
- QUARTZITE, CONGLOMERATE: usually argillaceous, medium dark gray to dark gray;
  - (a) Conglomerate, some ferrodolomite clasts.
- ARGILLITE, SUBORDINATE SILTSTONE: medium dark gray to black, some medium gray;
  - (a) Black argillite,
  - (b) Greenish-gray and/or dusky red argillite,
  - (c) Chert, siliceous argillite.
- SERPENTINITE: greenish black to brilliant green.
- FERRODOLOMITE: moderate reddish brown weathering; quartz seams common, some chert patches.
- DIABASE: dykes and/or sills.
- BRECCIA.
- SILICIC ALTERATION.
- GALENA, SPHALERITE;
  - Strong (As) Realgar
  - Moderate (Ba) Barite
  - Weak

Float Locality

Fossil Locality

Contact (approximate, inferred)

Fault (approx., inferred)

Thrust Fault (approx., inferred)

Bedding

Foliation

Minor Fold

Lineation

Top direction, determined from:

- cb - cross-bedding
- fs - flame structures
- rm - ripple marks
- sc - scour structure
- tb - truncated bedding

2000 1000 0 1000 2000 FEET

McINTYRE MINES LIMITED

CRAIG CLAIMS - EAST SHEET

GENERAL GEOLOGY

Drawn by: R.T. Falck	Revisions:		Map No.
Work by: W. KILBY, R. GIFFORD			C76 9-3
Date: JULY, AUGUST, 1977			Figure: 7
Scale: 1 inch = 1000 feet		Project No. 12008	

W.

E

Section 48,504E. Section 48,800E. Section 49,097E. Section 49,316E. Section 50,104E. Section 50,310E. Section 50,511E. Section 50,694E. Section 50,896E. Section 51,105E. Section 51,298E.

4900' 4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900' 3800' 3700' 3600'

CREEK

C77-10
319-326(7')
weak ZnS, PbS

C77-9
215.0 - 245.0(30.0')
1.2% Pb, 9.7% Zn, 0.68 oz/t Ag.

C77-8
312-335(23')
sparse ZnS

C77-11
432.0-444.0 (12.0')
2.1% Pb, 35.4% Zn, 2.65 oz/t Ag.

C77-13
515-545(30')
sparse ZnS

C77-28
629-646(17')
pyrite, argillaceous, minor silicification

C77-5
95.0-149.0 (54.0')
14.3% Pb, 15.5% Zn, 766 oz/t Ag.

C77-3
249.4-288.0 (38.6')
5.2% Pb, 13.2% Zn, 1.8 oz/t Ag.

C77-26
395-412 (17')
carbonaceous breccia; sparse ZnS, PbS

C77-1
151.0-210.8 (59.8')
3.6% Pb, 5.3% Zn, 0.96 oz/t Ag.

C77-2
343.0-362.0 (19.0')
1.2% Pb, 1.3% Zn, 0.28 oz/t Ag.

C77-4
113.6-206.4 (92.8')
5.5% Pb, 15.6% Zn, 1.68 oz/t Ag.

C77-20
72-125(53')
est. 3% Pb, 12% Zn, 0.9 oz/t Ag.

C77-6
113.8-184.5 (70.7')
12.9% Pb, 8.1% Zn, 3.75 oz/t Ag

C77-21
774-784(10')
sparse ZnS

C77-24
265.0-272.0 (7.0')
3.6% Pb, 15.5% Zn, 1.76 oz/t Ag.

C77-15
163.0-222.5 (59.5')
5.4% Pb, 20.3% Zn, 1.83 oz/t Ag.

C77-7
487-733 (246')
weak ZnS, PbS

C77-18
155-190 (35')
2.0% Pb, 4.9% Zn, 0.56 oz/t Ag.

SECTION

41,500'N.

CREEK

MAIN DOLOMITE

3a 1 3a

C77-10 (-51.5°) C77-9 (-53°) C77-8 (-45°) C77-5 (-45°) C77-11 (-54°) C77-13 (-50°) C77-3 (-45°) C77-26 (-46.5) C77-28 (-67°) C77-1 (-45°) C77-2 (-63°) C77-4 (-45°) C77-20 (-45°) C77-6 (-46.5°) C77-21 (-51°) C77-24 (-45°) C77-15 (-52°) C77-7 (-48°) C77-18 (-45°)

E.O.H. 1 E.O.H. 2 E.O.H. 26 E.O.H. 28

3a,b 3a

MAIN DOLOMITE

3a,b

LEGEND

HADRYNIAN

- DOLOMITE
  - (a) brecciated in part
  - (b) silicified
- ARGILLITE
- GALENA, SPHALERITE

Pb, Zn ≥ 20%
Pb, Zn ≥ 15 < 20%
Pb, Zn ≥ 10 < 15%

SURFACE PROFILE CENTERED ON TRACE OF MAIN DOLOMITE

PLAN

0 50 100 150 200 300 400 FEET

41,500'N.

48,000'E. 49,000'E. 50,000'E. 51,000'E.

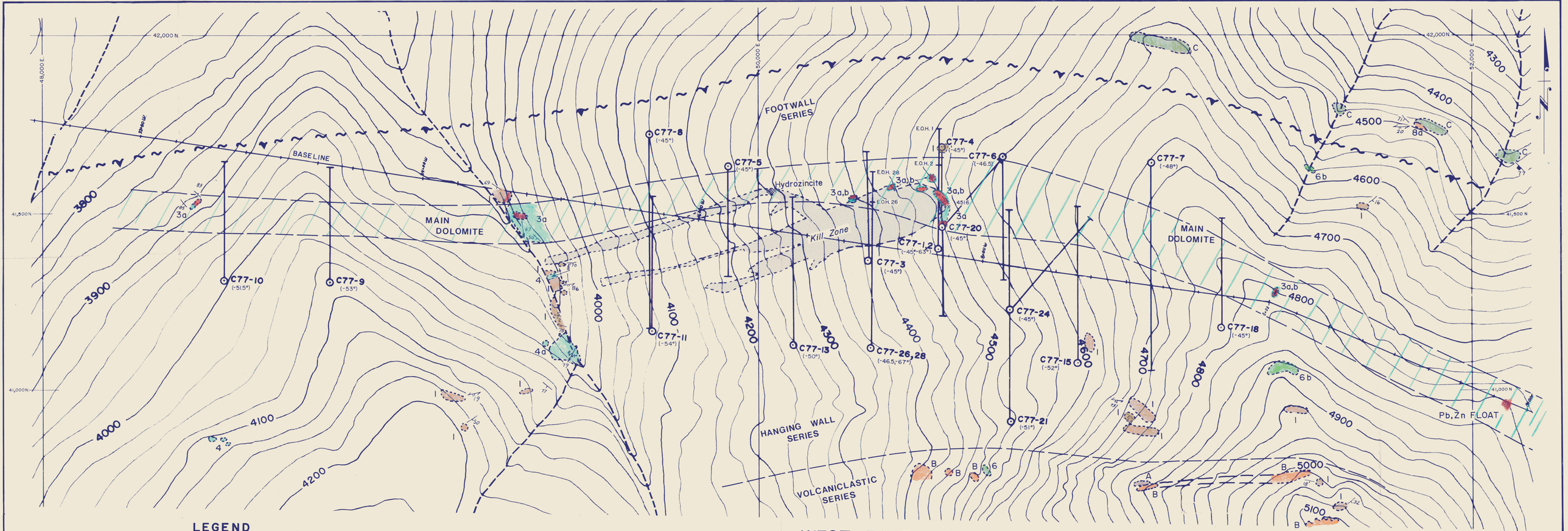
McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

LONGITUDINAL SECTION

R Gifford

Work by: R. GIFFORD	Revisions:	Map No.
Drawn by: R.T. Folck		Figure 8
Date: AUGUST, 1977		
Scale: 1 INCH = 100 FEET	Project No. 12008	



WEST ZONE

LEGEND

ORDOVICIAN - SILURIAN

- 8 — ARGILLITE: BLACK, FISSILE; DARK GRAY TO BLACK WEATHERING;
  - (a) chert beds in part, black.

HADRYNIAN

- 6 — PYROCLASTIC ROCKS: INTERMEDIATE COMPOSITION, GRAYISH OLIVE GREEN;
  - (a) tuff, volcanic breccia,
  - (b) tuff.
- 4 — LIMESTONE: ARGILLACEOUS, MEDIUM LIGHT GRAY TO DARK GRAY;
  - (a) argillite interbeds, dark gray to black.
- 3 — DOLOMITE: MEDIUM GRAY;
  - (a) brecciated in part,
  - (b) silicified.
- 1 — ARGILLITE, SUBORDINATE SILTSTONE; MEDIUM DARK GRAY TO BLACK, SOME MEDIUM GRAY;
  - (a) black argillite,
  - (b) greenish-gray and/or dusky red argillite,
  - (c) chert, siliceous argillite.
- A — SERPENTINITE: Greenish black to brilliant green.
- B — FERRODOLOMITE: Moderate reddish brown weathering; Quartz seams common, some chert patches.
- C — DIABASE: dykes and/or sills.
- GALENA, SPHALERITE.

THRUST FAULT (approx, inferred)
BEDDING
FOLIATION
CONTACT (approx, inferred)

0 25 50 75 100 150 200 250 300 400 500
FEET

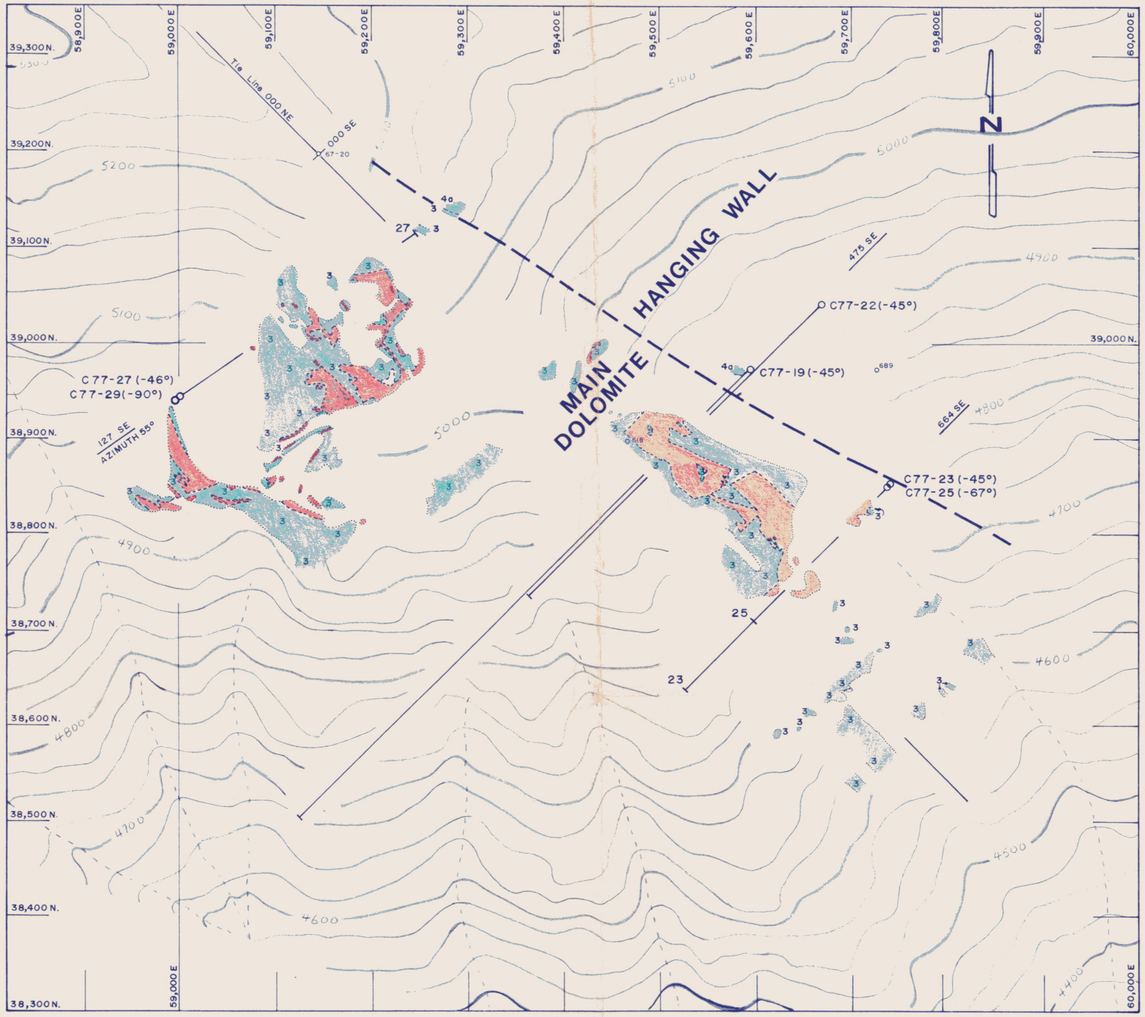
McINTYRE MINES LIMITED
VANCOUVER — CANADA

CRAIG CLAIMS - WEST ZONE

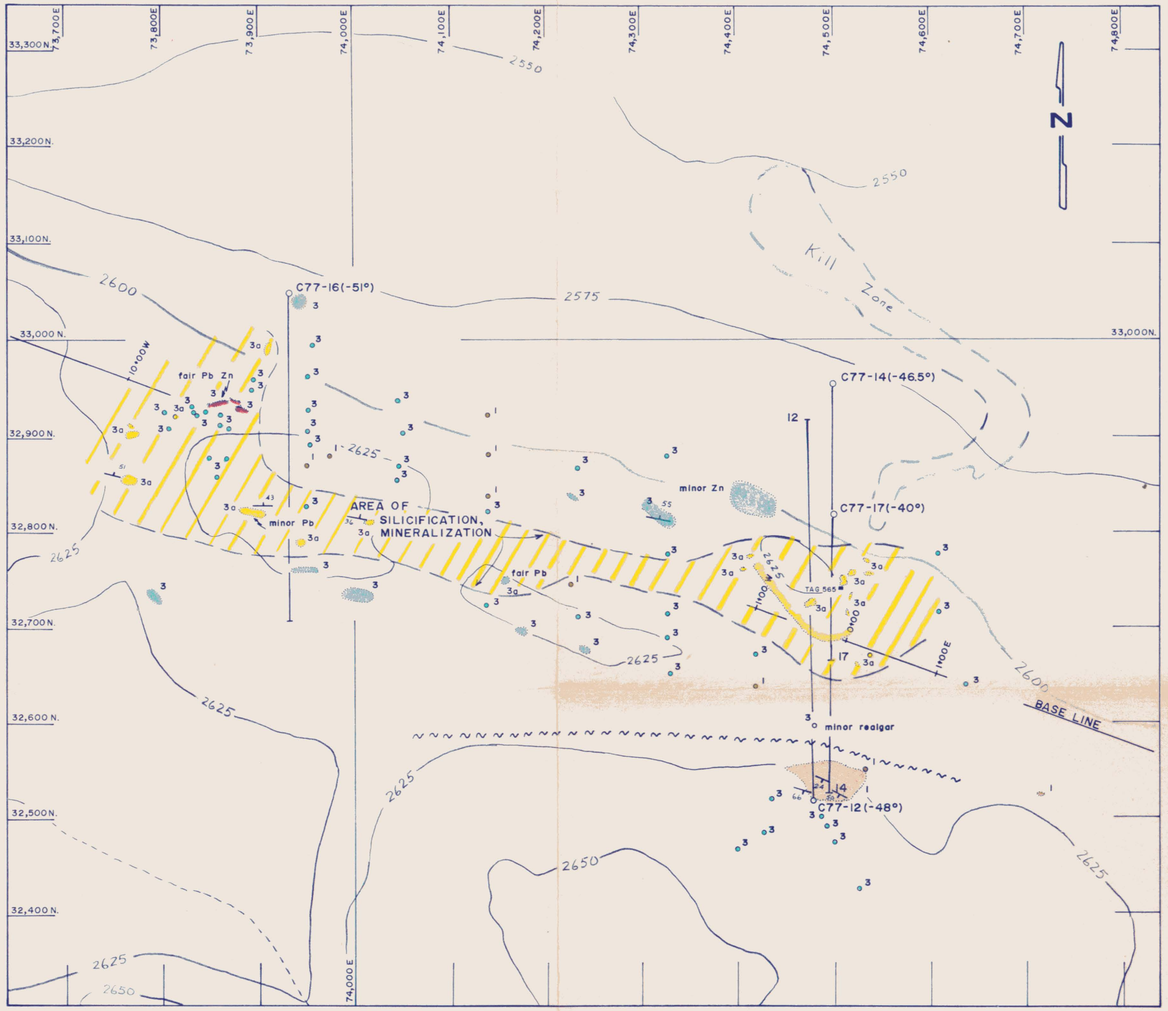
DRILL HOLE PLAN

R.G. Gifford

Drawn by: R.T. Falck	Revisions:	Map No. C70 12-19
Compiled by: R.G. GIFFORD		Figure 9
Date: AUGUST, 1977		
Scale: 1 INCH = 100 FEET	Project No. 12008	



DISCOVERY ZONE



TRENT ZONE

0 25 50 75 100 150 200 250 300 400 500
FEET

HADRYIAN

- 4 LIMESTONE: ARGILLACEOUS, MEDIUM LIGHT GRAY TO DARK GRAY; (a) argillite interbeds, dark grey to black.
- 3 DOLOMITE: MEDIUM GRAY; BRECCIATED IN PART.
- 1 ARGILLITE, SUBORDINATE SILTSTONE: MEDIUM DARK GRAY TO BLACK, SOME MEDIUM GRAY.
- 3a SILICIC ALTERATION
- GALENA, SPHALERITE
- ~~~ FAULT
- CONTACT (approximate, inferred)
- SHALLOW PIT, IN RUBBLE

McINTYRE MINES LIMITED
VANCOUVER – CANADA

CRAIG CLAIMS - DISCOVERY & TRENT ZONES

DRILL HOLE PLAN

R Blackford

Drawn by: R.T. Falck	Revisions:	Map No. C7G12-20
Compiled by: R.G. GIFFORD		Figure 10
Date: AUGUST, 1977		
Scale: 1 INCH = 100 FEET	Project No. 12008	

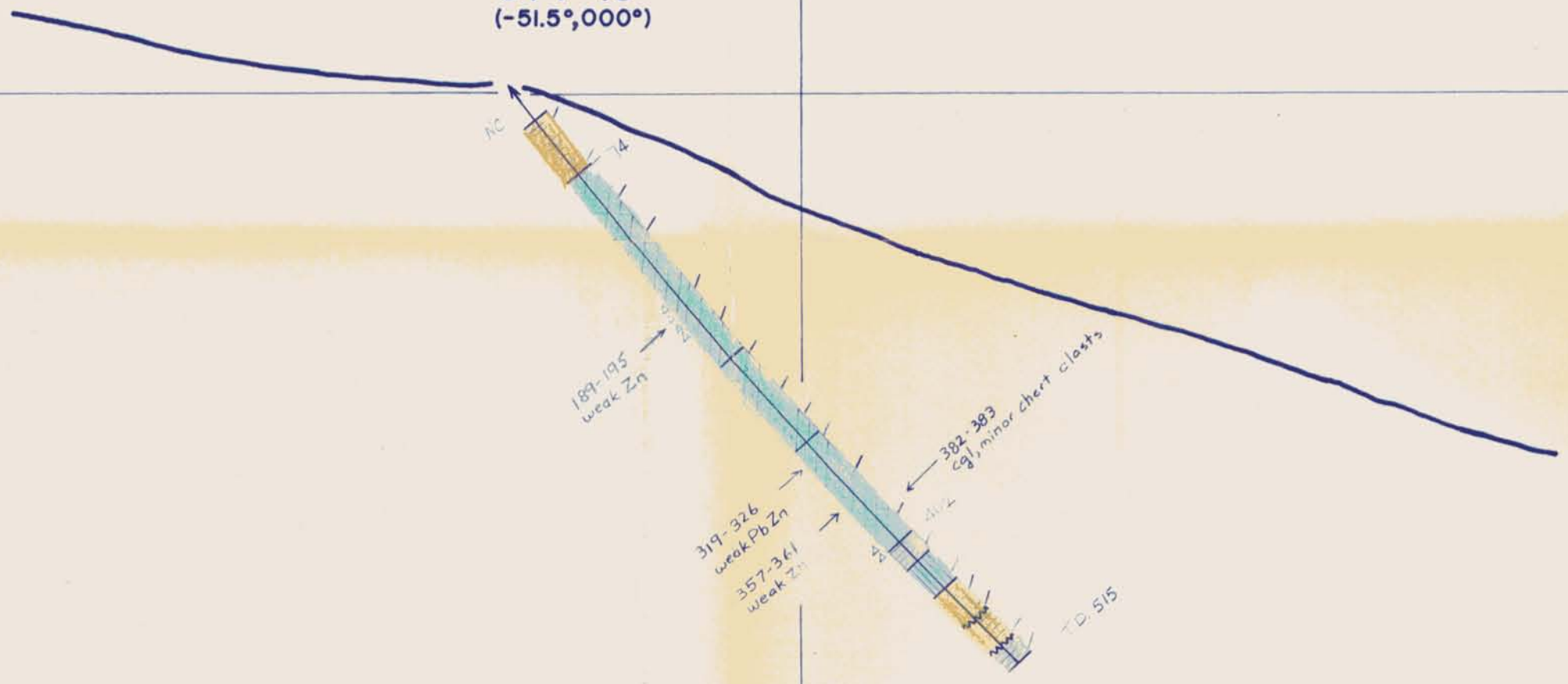
S

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

N

4600'
4500'
4400'
4300'
4200'
4100'
4000'
3900'
3800'
3700'
3600'
3500'
3400'
3300'
3200'

C77-10
(-51.5°,000°)



- BRECCIA
- CONGLOMERATE
- QUARTZITE, SILTSTONE dolomitic
- MIXED ARGILLITE, LIMESTONE
- ARGILLITE gray
- ARGILLITE black
- COLOURED ARG. green hue
- COLOURED ARG. red hue
- LAMINATED arg., carbonate
- LIMESTONE
- DOLOMITE
- FERRO-DOLOMITE
- VOLCANIC

- SANDY
- SILICIC ALTERATION
- CR 30% — POOR CORE RECOVERY
- NC — NO CORE
- BEDDING
- FAULT
- FRACTURE ZONE

A	Pb, Zn ≥ 20%
B	Pb, Zn ≥ 10 < 20%
C	Pb, Zn ≥ 5 < 10%
D	Pb, Zn ≥ 1 < 5%
P	PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Section 48504E: C77-10

LOOKING WEST R Gifford

Drawn by :	R.T Falck	Revisions :	Map No. : C7G 12-1 Figure 11
Work by :	W. Kilby, R. Gifford, P. Lindberg.		
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No. :	12 008

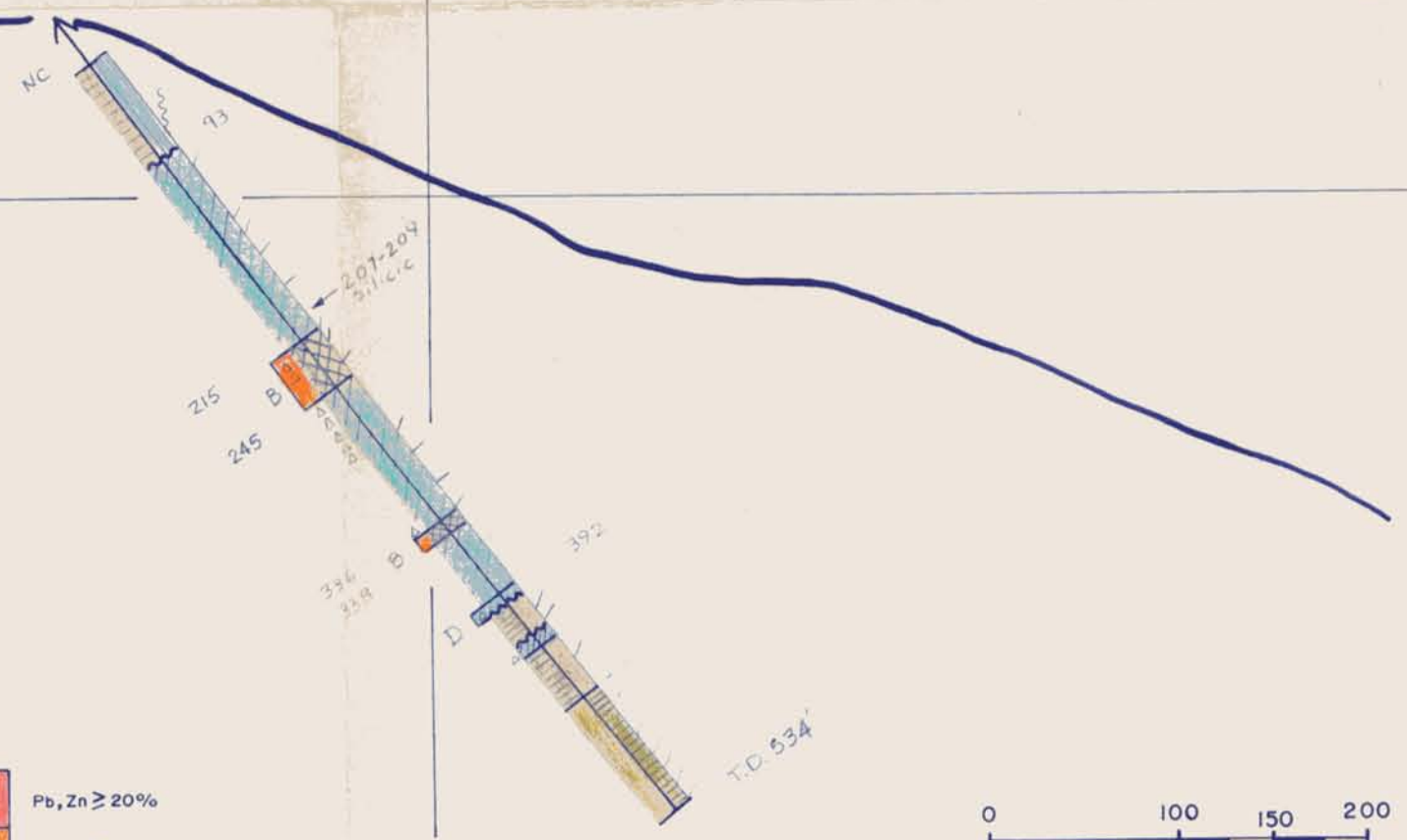
S

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

N

4800'
4700'
4600'
4500'
4400'
4300'
4200'
4100'
4000'
3900'
3800'
3700'
3600'
3500'
3400'

C77-9
(-53°, 000°)



C77-9	Pb	Zn	Ag
215-245	1.2	9.7	0.68
336-338	2.8	13.0	3.34

0 100 150 200
FEET

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR 30%
POOR CORE RECOVERY
NC
NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5 %
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Section 48800E: C77-9

LOOKING WEST R L Gifford

Drawn by :	R.T. Folck	Revisions :	Map No. : C7G 12-2 Figure 12
Work by :	W. Kilby, R. Gifford, P. Lindberg.		
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No. :	12 008

S

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

N

4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900' 3800' 3700' 3600' 3500' 3400'

C77-11
(-54°,003°)

C77-8
(-45°,180°)

NC

NC

C77-11	Pb	Zn	Ag
432-444	2.1	35.4	2.65

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR30% POOR CORE RECOVERY
NC NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED

VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Section 49 697E: C77-8, 11

LOOKING WEST

Drawn by :	R.T. Falck	Revisions :	Map No. : C7G 12-3
Work by :	W. Kilby, R. Gifford, P. Lindberg.		Figure 13
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No. :	12 008

S

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

N

4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900' 3800' 3700' 3600' 3500' 3400'

C77-5

(-45°, 180°)

C77-5	Pb	Zn	Ag
63 - 65	.1	5.2	0.1
95 - 149	14.3	15.5	7.66
149 - 152.5	Tr.	2.1	Tr.

- BRECCIA
- CONGLOMERATE
- QUARTZITE, SILTSTONE dolomitic
- MIXED ARGILLITE, LIMESTONE
- ARGILLITE gray
- ARGILLITE black
- COLOURED ARG. green hue
- COLOURED ARG. red hue
- LAMINATED arg., carbonate
- LIMESTONE
- DOLOMITE
- FERRO-DOLOMITE
- VOLCANIC

- SANDY
- SILICIC ALTERATION
- CR 30% — POOR CORE RECOVERY
- NC — NO CORE
- BEDDING
- FAULT
- FRACTURE ZONE

A	Pb, Zn ≥ 20%
B	Pb, Zn ≥ 10 < 20%
C	Pb, Zn ≥ 5 < 10%
D	Pb, Zn ≥ 1 < 5 %
P	PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200

FEET

McINTYRE MINES LIMITED

VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Section 49916E: C77-5

LOOKING WEST

Drawn by :	R.T. Falck	Revisions :	Map No. : C7G 12-4
Work by :	W. Kilby, R. Gifford, P. Lindberg.		Figure 14
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No. :	12 008

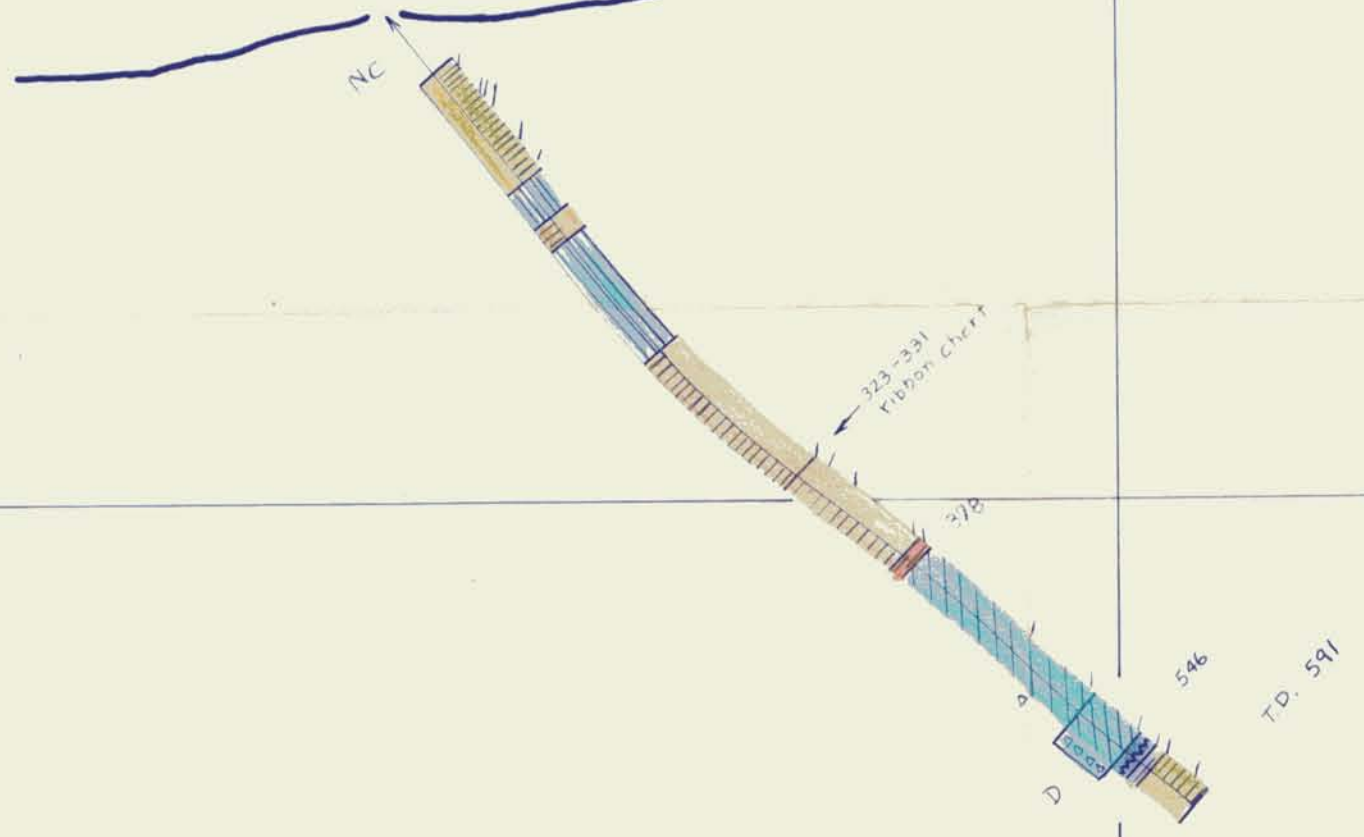
S

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

N

4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900' 3800' 3700' 3600' 3500' 3400'

C77-13
(-50.5°, 000°)



BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR30% POOR CORE RECOVERY
NC NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Section 50 104E: C77-13

LOOKING WEST

Drawn by:	R.T Falck	Revisions:	Map No.: C7G 12-5 Figure 15
Work by:	W. Kilby, R. Gifford, P. Lindberg.		
Date:	July - August, 1977		
Scale:	1" = 100 feet	Project No.:	12 008

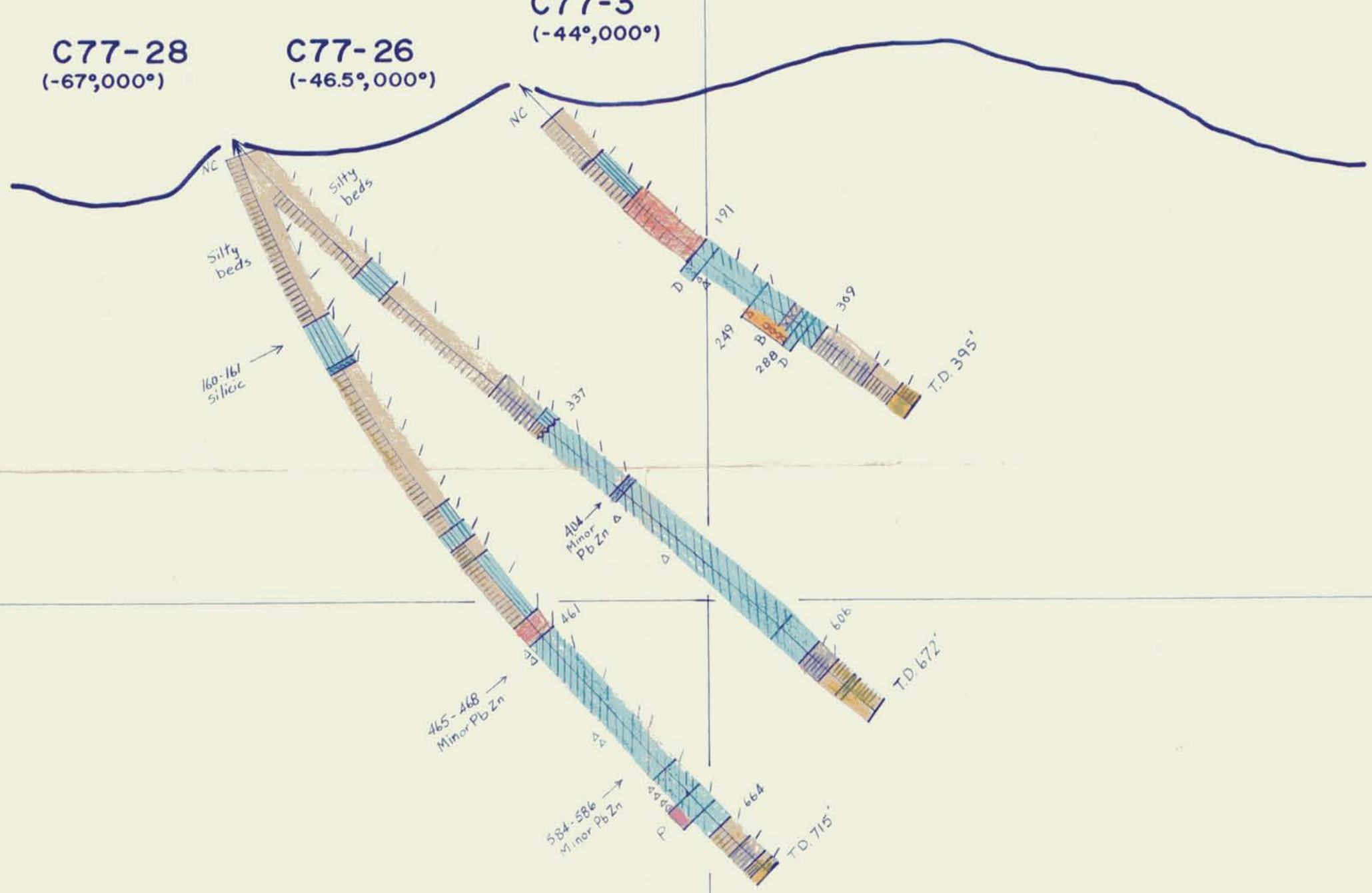
S

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

N

4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900' 3800' 3700' 3600' 3500' 3400'

C77-3	Pb	Zn	Ag
190.8 - 195.2	0.9	0.6	Tr.
200.0 - 202.5	Tr.	1.5	Tr.
249.4 - 288.0	5.2	13.2	1.8
288.0 - 294.0	Tr	2.0	Tr.



BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR 30%
POOR CORE RECOVERY
NC
NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED

VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Section 50310E: C77-3, 26, 28

LOOKING WEST

Drawn by :	R.T. Falck	Revisions :	Map No. : C76 12-6 Figure 16
Work by :	W. Kilby, R. Gifford, F. Lindberg.		
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No. :	12 008

S

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

N

4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900' 3800' 3700' 3600' 3500' 3400'

C77-4	Pb	Zn	Ag
71.0 - 88.0	1.0	1.6	0.41
88.0 -113.6	0.2	5.7	0.1
113.6 -206.4	5.5	15.6	1.68
433.5 -435.0	16.4	18.6	4.98
469.0-491.5	0.1	2.7	0.1

C77-1	Pb	Zn	Ag
63.5 - 64.0	25.7	19.2	8.02
151.0 - 210.8	3.6	5.3	0.96

C77-2	Pb	Zn	Ag
106.6 - 108.6	0.1	3.8	Tr.
303.0 - 343.0	0.1	0.6	Tr.
343.0 - 362.0	1.2	1.3	0.28

- BRECCIA
- CONGLOMERATE
- QUARTZITE, SILTSTONE dolomitic
- MIXED ARGILLITE, LIMESTONE
- ARGILLITE gray
- ARGILLITE black
- COLOURED ARG. green hue
- COLOURED ARG. red hue
- LAMINATED arg., carbonate
- LIMESTONE
- DOLOMITE
- FERRO-DOLOMITE
- VOLCANIC

- SANDY
- SILICIC ALTERATION
- CR 30% — POOR CORE RECOVERY
- NC — NO CORE
- BEDDING
- FAULT
- FRACTURE ZONE

- A — Pb, Zn ≥ 20%
- B — Pb, Zn ≥ 10 < 20%
- C — Pb, Zn ≥ 5 < 10%
- D — Pb, Zn ≥ 1 < 5%
- P — PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200

FEET

McINTYRE MINES LIMITED

VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Section 50 511 E : C77-1,2,4

LOOKING WEST

Drawn by :	R.T. Falck	Revisions :	Map No. : C7G 12-7 Figure 17
Work by :	W. Kilby, R. Gifford, P. Lindberg.		
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No. :	12 008

S

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

N

4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900' 3800' 3700' 3600' 3500' 3400'

C77-21
(-51°, 000°)

C77-6
(-46.5°, 180°)

NC

110-113.8 C

113.8-184.5 A

184.5-189 D

CR 50%

CR 50%

338

T.D. 502

504

CR 30%

444

miner min.

miner min.

444444

815

T.D. 875

870-874 quartz

NC

C77-6	Pb	Zn	Ag
110.0 - 113.8	0.3	6.6	0.24
113.8 - 184.5	12.9	8.1	3.75
184.5 - 189.0	0.1	3.4	0.06

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR 30%
POOR CORE RECOVERY
NC NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED

VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Section 50694E: C77-6, 21

LOOKING WEST

Drawn by :	R.T. Falck	Revisions :	Map No. : C7G 12-8
Work by :	W. Kilby, R. Gifford, P. Lindberg.		Figure 18
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No. :	12 008

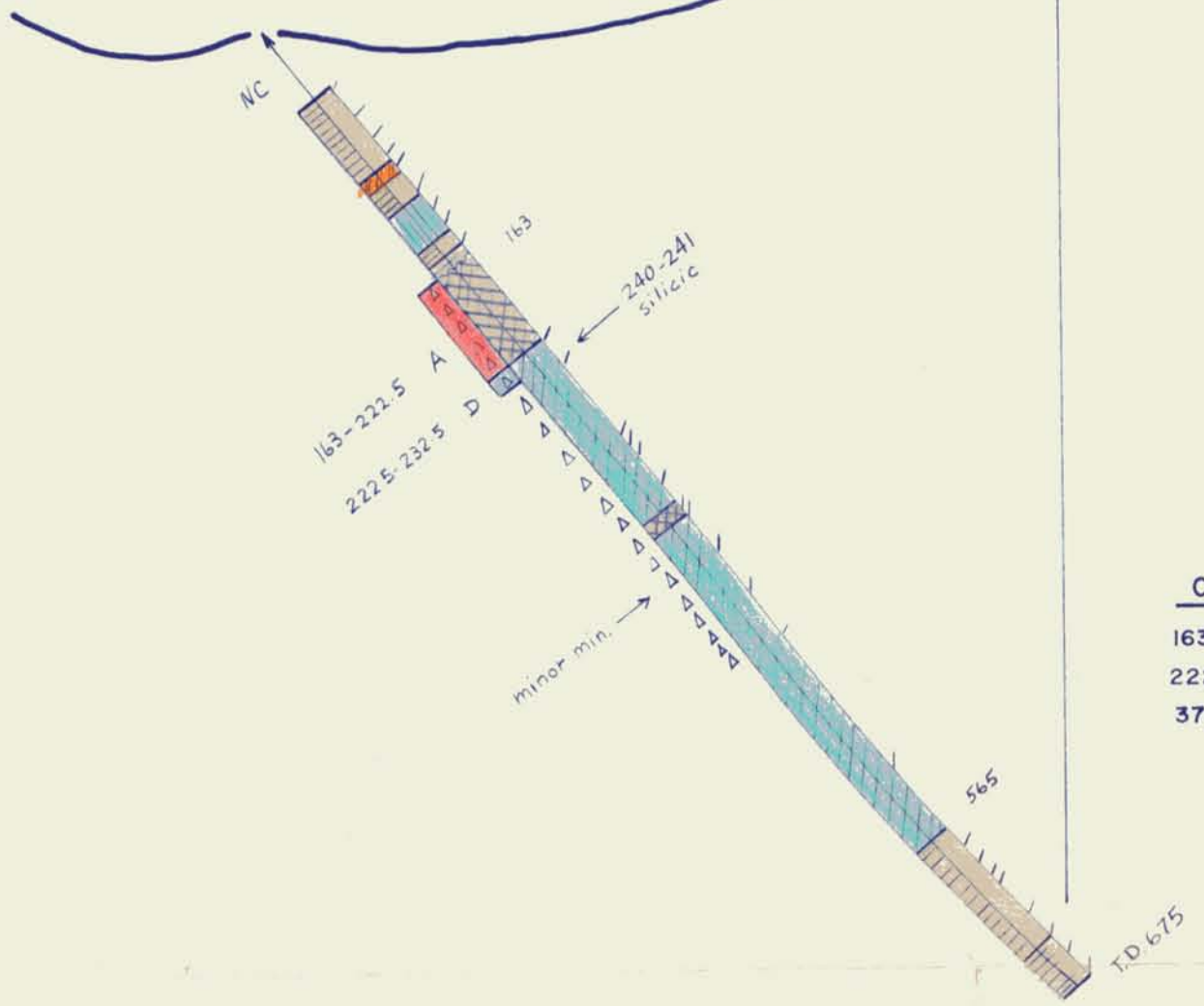
S

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

N

4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900' 3800' 3700' 3600' 3500' 3400'

C77-15
(-52°,000°)



C77-15	Pb	Zn	Ag
163.0 - 222.5	5.4	20.3	1.83
222.5 - 232.5	Tr.	0.9	Tr.
370.0 - 370.2	11.4	1.1	3.74

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR 30%
POOR CORE RECOVERY
NC
NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Section 50895E: C77-15

LOOKING WEST R Blyth

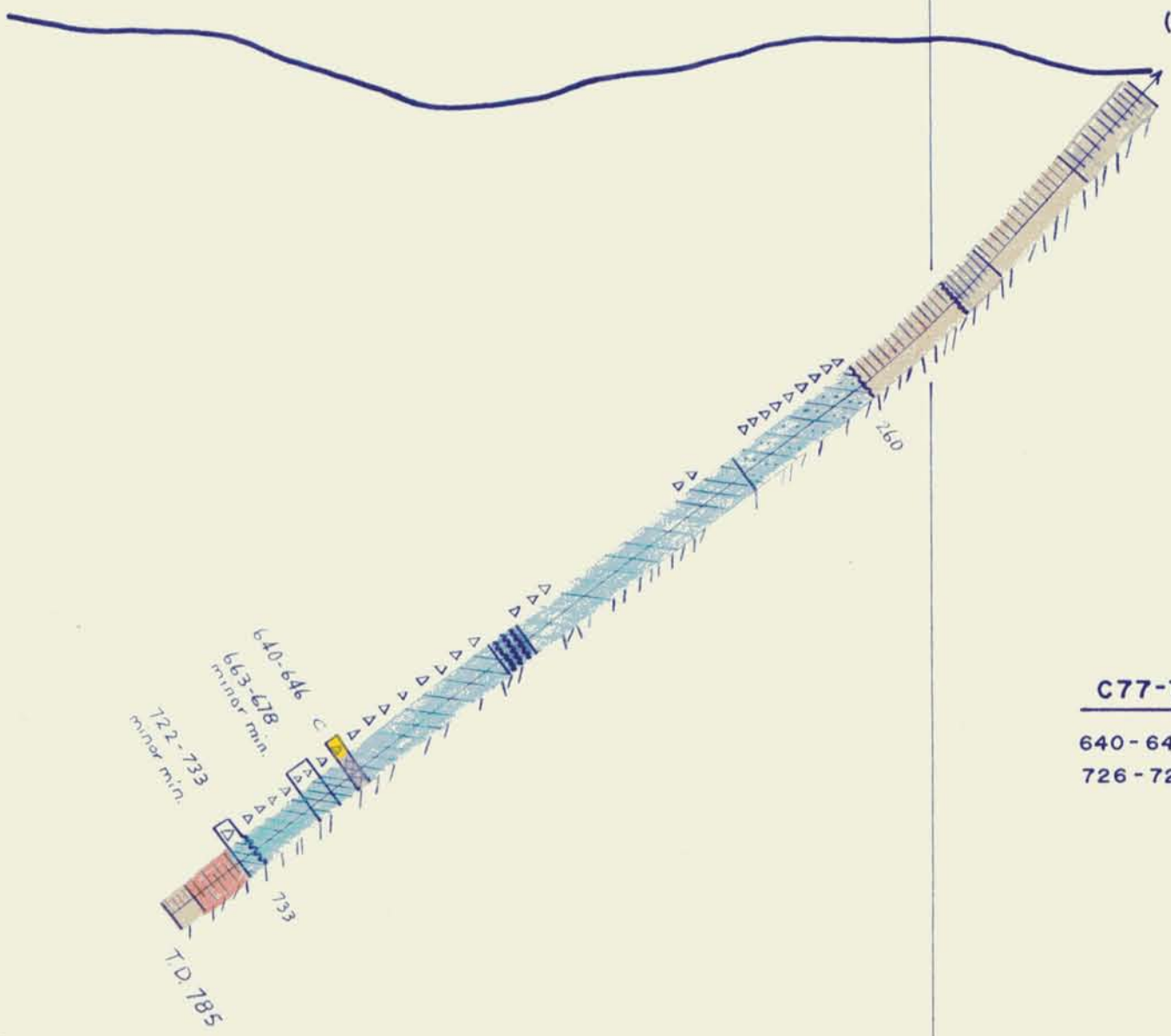
Drawn by:	R.T. Falck	Revisions:	Map No.: C76 12-9 Figure 19
Work by:	W. Kilby, R. Gifford, P. Lindberg.		
Date:	July - August, 1977		
Scale:	1" = 100 feet	Project No.:	12 008

S

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

N

4800'
4700'
4600'
4500'
4400'
4300'
4200'
4100'
4000'
3900'
3800'
3700'
3600'
3500'
3400'



C77-7	Pb	Zn	Ag
640 - 646	0.6	5.8	0.24
726 - 728	Tr.	1.0	Tr.

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR 30%
POOR CORE RECOVERY
NC
NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Section 51105 E: C77-7

LOOKING WEST R Gifford

Drawn by :	R.T. Falck	Revisions :	Map No. : C76 12-10
Work by :	W. Kilby, R. Gifford, P. Lindberg.		Figure 20
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No. : 12008	

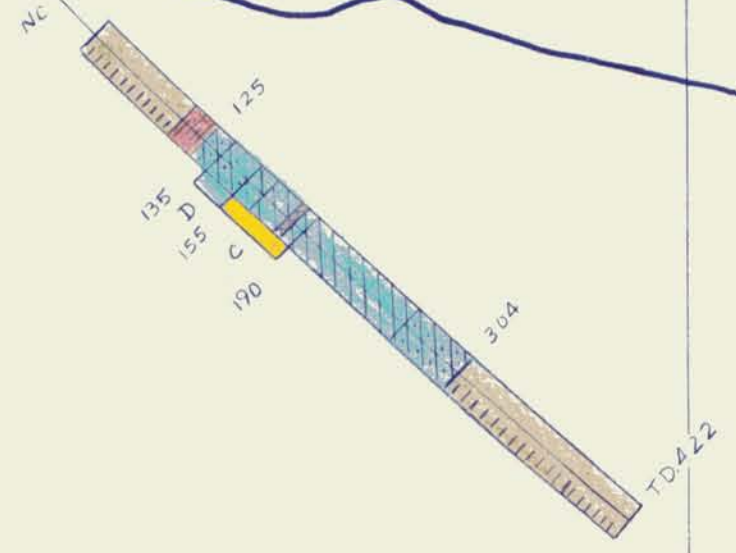
S

40900N 41000N 41100N 41200N 41300N 41400N 41500N 41600N 41700N 41800N 41900N 42000N

N

4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900' 3800' 3700' 3600' 3500' 3400'

C77-18
(-45°,000°)



C77-9	Pb	Zn	Ag
135 - 155	0.5	2.0	0.16
155 - 190	2.0	4.9	0.56

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR 30%
POOR CORE RECOVERY
NC
NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5 %
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Section 51 299E: C77-18

LOOKING WEST R Clifford

Drawn by :	R.T. Falck	Revisions :	Map No. : C7G 12-11
Work by :	W. Kilby, R. Gifford, P. Lindberg.		Figure 21
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No. :	12 008

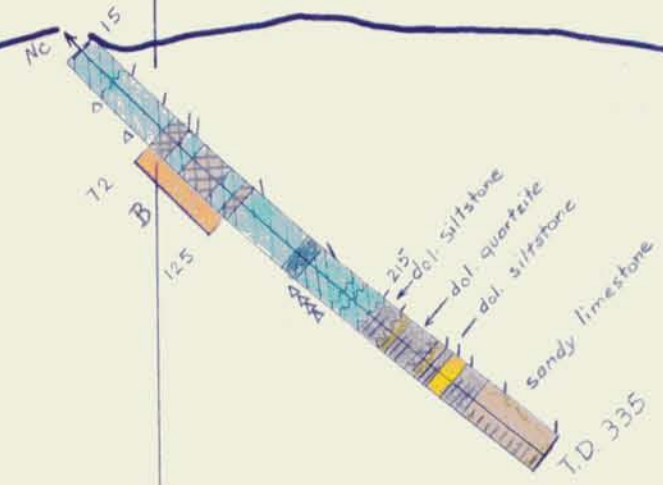
SW

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

NE

4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900' 3800' 3700' 3600' 3500' 3400'

C77-20
(-45°, 040°)



C77-20

72-125' est. 3% Pb, 12% Zn, 0.9 oz/t Ag.

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR 30%
POOR CORE RECOVERY
NC
NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Oblique 50515E: C77-20

LOOKING NORTHWEST

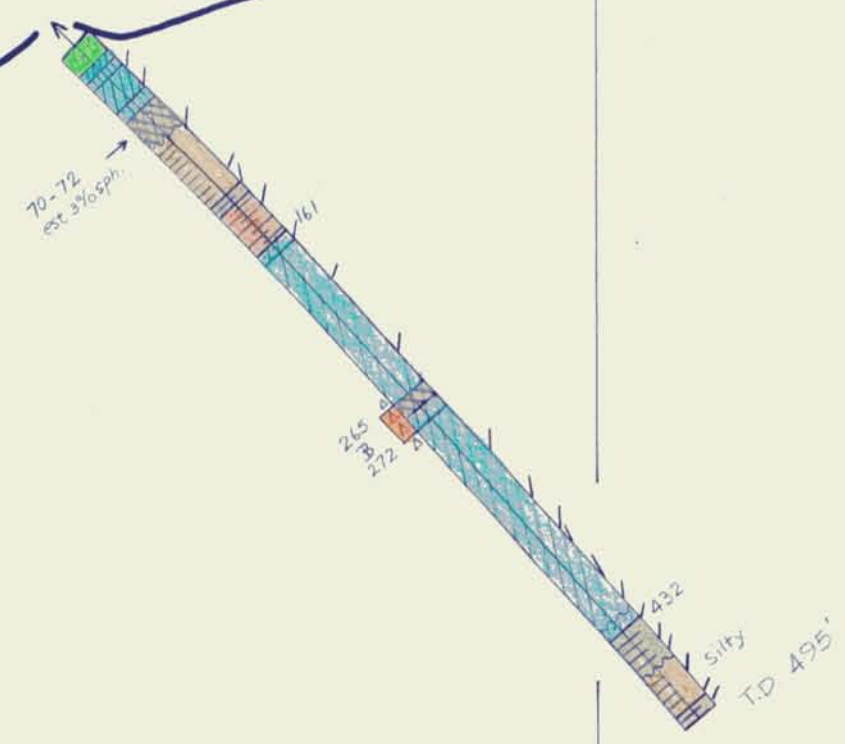
Drawn by:	R.T. Falck	Revisions:	Map No.: C7G 12-12
Work by:	W. Kilby, R. Gifford, P. Lindberg.		Figure 22
Date:	July - August, 1977		
Scale:	1" = 100 feet	Project No.:	12 008

SW

40900N | 41000N | 41100N | 41200N | 41300N | 41400N | 41500N | 41600N | 41700N | 41800N | 41900N | 42000N

NE

4800'
4700'
4600'
4500'
4400'
4300'
4200'
4100'
4000'
3900'
3800'
3700'
3600'
3500'
3400'



C77-24	Pb	Zn	Ag
265.0 - 272.0	3.6	15.5	1.76

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR 30%
POOR CORE RECOVERY
NC
NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

Oblique 50706E : C77-24

LOOKING NORTHWEST R Gifford

Drawn by :	R.T. Falck	Revisions :	Map No. : C7G 12-13
Work by :	W. Kilby, R. Gifford, P. Lindberg.		Figure 23
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No. :	12.008

SW

5+00 SW | 4+00 SW | 3+00 SW | 2+00 SW | 1+00 SW | Tie Line at 0+00 | 1+00 NE | 2+00 NE | 3+00 NE | 4+00 NE | 5+00 NE

NE

5300' 5200' 5100' 5000' 4900' 4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900'

C77-29
(-90°,000°)

C77-27
(-46°,055°)

NC

34-92 weak ZnS, PbS

101-102 argillaceous, pyritic

85-140 weak ZnS, PbS

103-108 C

131-136 B

92-103 B

139-143 Smith.

162-184 weak ZnS, PbS

162-167 D

179-184 B

193-200 weak ZnS, PbS

T.D. 380'

526-535 weak ZnS, PbS, Pyritic

699-724 argillite laminations

753

calcareous

T.D. 800'

703-705 weak ZnS, PbS

C77-27	Pb	Zn	Ag
92.0-103.0	6.0	8.8	1.83

C77-29	Pb	Zn	Ag
103.0 - 108.0	1.3	8.5	0.50
131.0 - 136.0	6.7	8.2	2.26
162.0 - 167.0	0.5	3.8	0.18
179.0 - 184.0	0.5	11.5	0.20

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
C ≥ 30%
POOR CORE RECOVERY
NC
NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED
VANCOUVER - . CANADA

CRAIG CLAIMS - DISCOVERY ZONE

Section 127 SE: C77-27, 29

LOOKING NORTH-WEST R Blackford

Drawn by :	R T Falck	Revisions :	Map No. : C7G 12-16
Work by :	W. Kilby, A. Clark		Figure 24
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No.	12 008

SW

5+00 SW | 4+00 SW | 3+00 SW | 2+00 SW | 1+00 SW | Tie Line at 0+00 | 1+00 NE | 2+00 NE | 3+00 NE | 4+00 NE | 5+00 NE

NE

5300' 5200' 5100' 5000' 4900' 4800' 4700' 4600' 4500' 4400' 4300' 4200' 4100' 4000' 3900'

C77-19	Pb	Zn	Ag
97.0-117.0	1.5	22.2	0.78

C77-19 (-45°, 225°)

C77-22 (-45°, 225°)

thin-bedded

N.C.

139-150 pyritic

123-129 weak sph.

175-180 weak sph.

184-194 " "

202-216 " "

240-248 weak sph.

268-271 " "

97 A 117

373-384 weak sph.

420-446 weak sph.

553-567 weak sph.

T.D. 447'

T.D. 847'

laminated, thin-bedded

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

C ≥ 30%

SANDY
SILICIC ALTERATION
POOR CORE RECOVERY
NC NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED

VANCOUVER - CANADA

CRAIG CLAIMS - DISCOVERY ZONE

Section 475 SE: C77-19, 22

LOOKING NORTH-WEST R Bickford

Drawn by :	R T Falck	Revisions :	Map No. : C7G 12-17
Work by :	W. Kilby, A. Clark		Figure 25
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No.	12 008

SW

5+00 SW | 4+00 SW | 3+00 SW | 2+00 SW | 1+00 SW | Tie Line at 0+00 | 1+00 NE | 2+00 NE | 3+00 NE | 4+00 NE | 5+00 NE

NE

5300' | 5200' | 5100' | 5000' | 4900' | 4800' | 4700' | 4600' | 4500' | 4400' | 4300' | 4200' | 4100' | 4000' | 3900'

C77-25
(-67°, 225°)

C77-23
(-45°, 225°)

Pyritic, carbonaceous weak smith.
82-97
97-101
101-105
B
N.C.
N.C.
35-43 Weak zns, Pbs
51-59 Weak sph.
69-86 Weak sph.
Pyritic, carbonaceous weak smith.
Pyritic, carbonaceous weak sph.
223-227
227-231
223-231
231-241
241-247
Pyritic, carbonaceous carbonaceous weak sph.
323-333
339-352
Weak smith.
T.D. 443'
T.D. 498

C77-23	Pb	Zn	Ag
82.0 - 97.0	6.2	11.2	1.58
97.0 - 101.0	0.3	0.5	0.14
101.0 - 105.0	Tr.	Tr.	Tr.

C77-25	Pb	Zn	Ag
223.0 - 227.0	Tr.	0.1	Tr.
227.0 - 231.0	0.1	1.4	Tr.

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
C.R. 30%
POOR CORE RECOVERY
N.C.
NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - DISCOVERY ZONE

Section 664 SE: C77-23,25

LOOKING NORTH-WEST

R Bluford

Drawn by :	R T Falck	Revisions :	Map No. : C7G 12-18 Figure 26
Work by :	W. Kilby, A. Clark		
Date :	July - August, 1977		
Scale :	1" = 100 feet	Project No.	12 008

S

32 200N | 32300N | 32400N | 32 500N | 32 600N | 32 700N | 32800N | 32 900N | 33 000N | 33 100N | 33200N | 33 300N

N

3000'
2900'
2800'
2700'
2600'
2500'
2400'
2300'
2200'
2100'
2000'
1900'
1800'
1700'
1600'

CREEK

C77-16
(-51°, 180°)

N.C.

36-61 weak Zn-Pb

147-158 weak Zn-Pb

210-256 weak Zn-Pb

274-291 weak Zn

420-427 minor realgar

452 orpiment

461 realgar

481 realgar

200 150 100 0 100 150 200
FEET

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR 30%
POOR CORE RECOVERY
NC
NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - TRENT ZONE

Section 73933E: C77-16

LOOKING WEST

Drawn by :	R.T. Falck	Revisions :	Map No. : C7G 12-14 Figure 27
Work by :	W. Kilby, A. Birkeland.		
Date :	July-August, 1977		
Scale :	1" = 100 feet	Project No. :	12 008

S

32 200 N | 32 300 N | 32 400 N | 32 500 N | 32 600 N | 32 700 N | 32 800 N | 32 900 N | 33 000 N | 33 100 N | 33 200 N | 33 300 N

N

3000'
2900'
2800'
2700'
2600'
2500'
2400'
2300'
2200'
2100'
2000'
1900'
1800'
1700'
1600'

C77-17	Pb	Zn	Ag
15.0 - 29.0	4.3	24.1	1.40
105.0 - 109.0	0.2	8.5	0.07
152.0 - 174.0	1.6	20.3	0.35

C77-12
(-48°, 359°)

C77-17
(-40°, 180°)
27' EAST of Sect.

C77-14
(-46.5°, 174°)

C77-12	Pb	Zn	Ag
213.0 - 224.0	0.3	10.5	0.12
232.5 - 235.5	0.1	7.6	0.15
260.0 - 268.0	0.9	6.3	0.22
271.0 - 275.0	0.6	3.2	0.44
308.0 - 312.0	1.5	2.5	0.28
333.0 - 347.0	1.4	10.5	0.39
386.5 - 388.5	1.0	19.4	0.33
399.0 - 403.0	5.1	6.4	0.88

213 - 403 (0.3 Pb, 2.2 Zn, 0.08 Ag) approx.

BRECCIA
CONGLOMERATE
QUARTZITE, SILTSTONE dolomitic
MIXED ARGILLITE, LIMESTONE
ARGILLITE gray
ARGILLITE black
COLOURED ARG. green hue
COLOURED ARG. red hue
LAMINATED arg., carbonate
LIMESTONE
DOLOMITE
FERRO-DOLOMITE
VOLCANIC

SANDY
SILICIC ALTERATION
CR 30%
POOR CORE RECOVERY
NC
NO CORE
BEDDING
FAULT
FRACTURE ZONE

A Pb, Zn ≥ 20%
B Pb, Zn ≥ 10 < 20%
C Pb, Zn ≥ 5 < 10%
D Pb, Zn ≥ 1 < 5%
P PYRITE

DIP APPLIES LOCALLY WHEN AT CONTACT, AND HALFWAY TO NEXT SYMBOL WHEN BETWEEN CONTACT.

200 150 100 0 100 150 200
FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - TRENT ZONE

Section 74 490E: C77-12,14,17

LOOKING WEST R Chatfield

Drawn by:	R.T. Falck	Revisions:	Map No.: C76 12-15 Figure: 28
Work by:	W. Kilby, A. Birkeland.		
Date:	July-August, 1977		
Scale:	1" = 100 feet	Project No.:	12 008

TABLE OF CONTENTS

APPENDIX B

TABLE OF ASSAYS AND METAL RATIOS

TABLE OF ASSAYS AND METAL RATIOS

D.D.H	Interval/Length (feet)	% Pb	% Zn	Ag. oz/ton	Ratio(for values ≥0.5% Pb or Zn) Pb/Zn	Ag/Pb	Ag/Zn	Ag/Pb& Zn
C77-1	63.5- 64.0/0.5	25.7	19.2	8.02	1.3	.3	.4	.2
	64.0- 66.0/2.0	0.19	0.89	0.07	.2	-	<.1	<.1
	146.6-151.0/4.4	0.03	1.30	0.06	<.1	-	<.1	<.1
	151.0-157.4/6.4	0.54	8.69	0.19	.1	.35	<.1	<.1
	157.4-159.9/2.5	41.6	13.3	10.78	3.1	.3	.8	.2
	159.9-164.9/5.0	0.08	2.30	0.08	<.1	-	<.1	<.1
	192.2-194.3/2.1	0.02	0.12	0.03	-	-	-	-
	194.3-198.3/4.0	0.82	17.4	0.44	<.1	.5	<.1	<.1
	198.3-203.3/5.0	0.05	0.43	0.02	-	-	-	-
	203.3-208.3/5.0	9.34	17.0	2.73	.55	.3	.2	.4
	208.3-210.8/2.5	21.7	23.5	5.42	.9	.25	.2	.1
	210.8-215.8/5.0	0.47	0.89	0.16	.5	.3	.2	.1
C77-2	106.6-108.6/2.0	0.06	3.84	0.03	<.1	-	<.1	<.1
	303.0-308.0/5.0	0.31	1.09	0.14	.3	-	.1	.1
	308.0-313.0/5.0	0.06	0.36	0.02	-	-	-	-
	313.0-318.0/5.0	0.02	0.07	0.01	-	-	-	-
	318.0-323.0/5.0	0.03	1.60	0.16	<.1	-	.1	.1
	323.0-328.0/5.0	0.10	0.60	0.05	.2	-	<.1	<.1
	328.0-333.0/5.0	0.06	0.50	0.03	.1	-	<.1	<.1
	333.0-338.0/5.0	0.03	0.47	0.02	<.1	-	<.1	<.1
	338.0-343.0/5.0	0.32	0.10	0.08	-	-	-	-
	343.0-348.0/5.0	1.07	3.65	0.40	.3	.4	.1	<.1
	348.0-353.0/5.0	1.20	0.96	0.30	1.25	.25	.3	.1
	353.0-358.0/5.0	0.92	0.27	0.17	3.4	.2	-	.1
	358.0-362.0/4.0	1.53	0.18	0.22	8.5	.1	-	.1
C77-3	190.8-195.2/4.4	0.93	0.55	0.09	1.7	.1	.2	<.1
	200.0-202.5/2.5	0.03	1.49	<0.01	<.1	-	-	<.1
	245.0-249.4/4.4	0.01	0.51	0.03	.1	-	-	<.1
	249.4-252.5/3.1	0.18	11.2	0.05	<.1	-	-	<.1
	252.5-255.5/3.0	1.74	33.2	1.12	<.1	.6	<.1	<.1
	255.5-259.4/3.9	0.03	1.11	< 0.01	<.1	-	-	<.1
	269.0-270.7/1.7	1.18	14.1	0.41	.1	.35	<.1	<.1
	270.7-275.2/4.5	0.06	0.85	0.02	<.1	-	<.1	<.1

D.D.H.	Interval/Length (feet)	% Pb	% Zn	Ag oz/ton	Ratio(for values ≥0.5% Pb or Zn) Pb/Zn	Ag/Pb	Ag/Zn	Ag/Pb& Zn
C77-3 Con't	275.2-279.0/3.8	0.78	12.1	0.20	.1	.3	<.1	<.1
	279.0-282.5/3.5	20.9	41.8	5.30	.5	.25	.1	<.1
	282.5-285.5/3.0	30.0	27.3	12.78	1.1	.4	.5	.2
	285.5-288.0/2.5	10.6	27.9	3.26	.4	.3	.1	<.1
	288.0-294.0/6.0	0.07	2.0	0.02	<.1	-	<.1	<.1
	305.0-309.5/4.5	0.04	0.21	0.01	-	-	-	-
C77-4	71.0- 75.0/4.0	3.50	1.79	1.62	2.0	.5	.9	<.1
	75.0- 79.0/4.0	0.03	1.04	<0.01	<.1	-	-	<.1
	79.0- 83.0/4.0	0.45	1.94	0.12	.2	.3	.1	<.1
	83.0- 88.0/5.0	0.10	1.74	0.01	<.1	-	-	<.1
	88.0- 92.5/4.5	0.65	14.4	0.42	<.1	.65	<.1	<.1
	92.5- 97.0/4.5	0.06	5.40	0.10	<.1	-	-	<.1
	97.0-101.5/4.5	0.15	5.74	0.06	<.1	-	-	<.1
	101.5-106.3/4.8	0.45	5.40	0.23	.1	.5	<.1	<.1
	106.3-113.6/7.3	0.02	0.82	0.01	<.1	-	-	<.1
	113.6-117.8/4.2	0.91	13.5	0.43	.1	.5	<.1	<.1
	117.8-122.0/4.2	0.78	3.58	0.18	.2	.2	<.1	<.1
	122.0-126.7/4.7	1.28	22.2	0.75	.1	.6	<.1	<.1
	126.7-131.2/4.5	17.4	22.2	4.02	.8	.2	.2	<.1
	131.2-135.7/4.5	16.4	25.5	3.84	.6	.2	.15	<.1
	135.7-140.2/4.5	8.0	31.5	2.34	.25	.3	.1	<.1
	140.2-146.7/6.5	0.39	3.15	0.05	.1	-	<.1	<.1
	146.7-153.2/6.5	0.02	1.11	0.01	<.1	-	<.1	<.1
	153.2-157.3/4.1	4.16	9.00	1.12	.5	.3	.1	<.1
	157.3-161.4/4.1	1.30	0.59	0.37	2.2	.3	.6	.2
	161.4-165.5/4.1	14.1	9.93	4.46	1.4	.3	.45	.2
	165.5-169.6/4.1	7.33	5.78	1.80	1.3	.25	.3	.1
	169.6-173.7/4.1	6.05	11.3	2.34	.5	.4	.2	.1
	173.7-177.8/4.1	1.48	9.60	0.33	.15	.2	<.1	<.1
	177.8-181.9/4.1	1.75	36.5	1.22	<.1	.7	<.1	<.1
	181.9-186.0/4.1	4.53	24.0	1.14	.2	.25	<.1	<.1
	186.0-190.1/4.1	0.27	13.3	0.26	<.1	1.0	<.1	<.1
	190.1-194.2/4.1	0.60	30.1	0.35	<.1	.6	<.1	<.1
	194.2-198.3/4.1	3.32	31.5	1.04	.1	.3	<.1	<.1

D.D.H	Interval/Length (feet)	% Pb	% Zn	Ag oz/ton	Ratio(for values ≥0.5% Pb or Z Pb/Zn	Ag/Pb	Ag/Zn	Ag/Pb & Zr
C77-4 Con't	198.3-202.4/4.1	11.7	18.3	3.06	.6	.3	.2	.1
	202.4-206.4/4.0	17.7	17.4	7.91	1.0	.45	.45	.2
	206.4-210.4/4.0	0.04	0.63	0.01	<.1	-	<.1	<.1
	433.5-435.0/1.5	16.4	18.6	4.98	.9	.3	.3	.1
	469.0-474.0/5.0	0.21	5.54	0.16	<.1	-	<.1	<.1
	474.0-479.0/5.0	0.04	3.84	0.02	<.1	-	<.1	<.1
	479.0-484.0/5.0	0.02	0.08	0.04	-	-	-	-
	484.0-489.0/5.0	0.05	1.89	0.10	<.1	-	<.1	<.1
	489.0-491.5/2.5	0.03	1.54	0.06	<.1	-	<.1	<.1
C77-5	63.0- 65.0/2.0	0.06	5.23	0.1	<.1	-	<.1	<.1
	95.0-100.0/5.0	17.4	22.5	6.24	.8	.4	.3	.1
	100.0-106.6/6.6	28.3	12.4	13.46	2.1	.5	1.0	.3
	106.6-111.1/4.7	46.9	7.06	35.16	6.6	.8	5.0	.7
	111.1-117.0/5.9	19.3	20.5	8.24	1.0	.4	.4	.7
	117.0-122.3/5.3	0.48	2.72	0.34	.2	.7	.1	.1
	122.3-125.0/2.7	1.6	9.12	1.10	.2	.7	.1	.1
	125.0-128.0/3.0	7.09	15.2	4.32	.5	.6	.3	.2
	128.0-130.5/2.5	.01	2.71	.01	<.1	-	<.1	<.1
	130.5-134.5/4.0	1.44	16.1	1.6	.1	1.1	.1	<.1
	134.5-138.0/3.5	.12	3.27	.01	<.1	-	<.1	<.1
	138.0-141.5/3.5	14.8	33.0	7.36	.45	.5	.2	.2
	141.5-145.0/3.5	15.9	22.0	6.82	.7	.4	.3	.2
	145.0-149.0/4.0	7.44	33.5	3.20	.2	.4	.1	<.1
	149.0-152.5/3.5	.03	2.15	.02	<.1	-	<.1	<.1
C77-6	110.0-113.8/3.8	0.34	6.63	0.24	<.1	-	<.1	<.1
	113.8-117.0/3.2	21.3	9.98	6.62	2.1	.3	.7	.2
	117.0-121.0/4.0	13.3	7.10	5.78	1.9	.4	.8	.3
	121.0-124.5/3.5	18.5	16.6	4.60	1.1	.25	.3	.1
	124.5-127.0/2.5	1.83	7.09	0.34	.3	.2	<.1	<.1
	127.0-128.6/1.6	40.6	1.04	9.84	39.0	.2	9.56	.2
	128.6-133.0/4.4	1.19	4.45	0.18	.3	.15	<.1	<.1
	133.0-137.0/4.0	22.8	5.87	5.36	3.9	.2	.9	.2
	137.0-141.0/4.0	0.20	0.92	0.06	.2	-	<.1	<.1
	141.0-145.0/4.0	0.33	1.54	0.05	.2	-	<.1	<.1
	145.0-149.0/4.0	0.16	0.49	0.05	.3	-	.1	<.1
	149.0-152.0/3.0	0.47	0.77	0.14	.6	.3	.2	.1

D.D.H	Interval/Length (feet)	% Pb	% Zn	Ag oz/ton	Ratio (for values ≥0.5% Pb or Zn) Pb/Zn	Ag/Pb	Ag/Zn	Ag/(Pb & Zn)
C77-6 Con't.	152.0-155.0/3.0	1.09	2.08	0.38	.5	.35	.2	.1
	155.0-160.0/5.0	0.03	0.82	0.04	<.1	-	<.1	<.1
	160.0-163.8/3.8	35.0	14.8	8.5	2.4	.2	.6	.2
	163.8-166.0/2.2	11.8	21.1	1.83	.6	.2	.1	<.1
	166.0-167.6/1.6	0.3	3.4	0.04	<.1	-	<.1	<.1
	167.6-172.6/5.0	10.9	12.0	5.16	.9	.5	.4	.2
	172.6-174.6/2.0	20.8	9.55	3.65	2.2	.2	.4	.1
	174.6-177.0/2.4	20.9	28.4	5.22	.7	.25	.2	.1
	177.0-181.0/4.0	39.9	14.3	11.96	2.8	.3	.8	.2
	181.0-184.5/3.5	25.6	16.0	9.58	1.6	.4	.6	.2
	184.5-189.0/4.5	0.10	3.40	0.06	<.1	-	<.1	<.1
	189.0-191.0/2.0	0.02	0.38	0.02	-	-	-	-
	191.0-195.6/4.6	0.05	0.14	0.01	-	-	-	-
C77-7	640.0-646.0/6.0	0.59	5.83	0.24	.1	.4	<.1	<.1
	726.0-728.0/2.0	0.05	1.04	0.02	<.1	-	<.1	<.1
C77-9	210.0-215.0/5.0	0.08	0.03	0.01	-	-	-	-
	215.0-220.0/5.0	.84	17.0	.68	<.1	.8	<.1	<.1
	220.0-225.0/5.0	3.92	30.6	2.56	.1	.65	.1	<.1
	225.0-230.0/5.0	.36	.92	.08	.4	-	<.1	<.1
	230.0-235.0/5.0	.26	.82	.05	.3	-	<.1	<.1
	235.0-240.0/5.0	.06	.02	.01	-	-	-	-
	240.0-245.0/5.0	1.74	9.01	.70	.2	.4	.1	<.1
	245.0-250.0/5.0	.06	.41	.02	-	-	-	-
	336.0-338.0/2.0	2.84	13.0	3.34	.2	1.2	.3	.2
C77-11	422.0-427.0/5.0	0.50	0.96	0.30	.5	.6	.3	.2
	427.0-432.0/5.0	0.08	0.07	0.03	-	-	-	-
	432.0-436.0/4.0	1.65	34.0	1.96	.5	1.2	.1	<.1
	436.0-440.0/4.0	2.74	39.5	3.70	.1	1.35	.1	<.1
	440.0-444.0/4.0	1.82	32.8	2.28	.1	1.25	.1	<.1
	444.0-448.0/4.0	0.06	0.14	0.02	-	-	-	-

D.D.H	Interval/Length (feet)	% Pb	% Zn	Ag oz/ton	Ratio(for values ≥0.5% Pb or Zn) Pb/Zn	Ag/Pb	Ag/Zn	Ag/Pb &Zn
C77-12	213.0-216.0/3.0	0.41	3.01	0.08	.1	-	<.1	<.1
	216.0-220.0/4.0	0.51	19.3	0.20	<.1	.4	<.1	<.1
	220.0-224.0/4.0	0.12	7.44	0.07	<.1	-	<.1	<.1
	232.5-235.5/3.0	0.12	7.56	0.15	<.1	1.25	<.1	<.1
	260.0-264.0/4.0	0.47	5.31	0.30	.1	.6	.1	<.1
	264.0-268.0/4.0	1.28	7.30	0.14	.2	.1	<.1	<.1
	271.0-275.0/4.0	0.59	3.21	0.44	.2	.75	.1	.1
	308.0-312.0/4.0	1.54	2.46	0.28	.6	.2	.1	<.1
	330.0-337.0/4.0	2.50	28.2	0.67	.1	.3	.1	<.1
	337.0-342.0/5.0	0.52	2.49	0.18	.2	.35	.1	<.1
	342.0-347.0/5.0	1.45	4.36	0.37	.3	.3	.1	<.1
	386.5-388.5/2.0	0.97	19.4	0.33	<.1	.3	.1	<.1
	399.0-403.0/4.0	5.06	6.41	0.88	.8	.2	.1	<.1
C77-15	163.0-167.5/4.5	5.95	36.1	1.98	.2	.3	<.1	<.1
	167.5-172.0/4.5	0.48	43.4	0.80	<.1	1.7	<.1	<.1
	172.0-176.5/4.5	8.28	37.0	2.48	.2	.3	.1	<.1
	176.5-180.6/4.1	7.47	14.3	2.02	.5	.3	.1	<.1
	180.6-184.5/3.9	0.20	0.12	0.06	-	-	-	-
	184.5-188.5/4.0	9.81	2.80	2.80	3.5	.3	1.0	.2
	188.5-193.8/5.3	0.30	2.40	0.14	.1	-	.1	<.1
	193.8-196.4/2.6	14.9	11.7	4.52	1.3	.3	.4	.1
	196.4-201.0/4.6	14.9	18.9	4.50	.8	.3	.2	.1
	201.0-207.5/6.5	0.70	0.74	0.24	.95	.3	.3	.2
	207.5-211.8/4.3	12.6	14.6	3.26	.9	.3	.2	.1
	211.8-216.8/5.0	2.03	35.5	1.40	.1	.7	<.1	<.1
	216.8-222.5/5.7	0.67	41.7	1.66	<.1	2.5	<.1	<.1
	222.5-227.5/5.0	0.04	0.82	0.02	<.1	-	<.1	<.1
	227.5-232.5/5.0	0.04	0.88	0.01	<.1	-	<.1	<.1
	370.0-370.2/0.2	11.4	1.06	3.74	10.7	.3	3.5	.3

D.D.H	Interval/Length (feet)	% Pb	% Zn	Ag oz/ton	Ratio(for values ≥0.5% Pb or Zn) Pb/Zn	Ag/Pb	Ag/Zn	Ag/Pb &Zn
C77-17	15.0- 19.0/4.0	8.93	33.5	2.30	.3	.3	.1	<.1
	19.0- 24.0/5.0	4.68	35.8	1.86	.1	.4	<.1	<.1
	24.0- 29.0/5.0	0.23	5.14	0.22	<.1	-	<.1	<.1
	105.0-109.0/4.0	0.20	8.52	0.07	<.1	-	<.1	<.1
	152.0-157.0/5.0	0.95	20.9	0.02	<.1	<.1	<.1	<.1
	157.0-163.0/6.0	0.86	16.8	0.20	<.1	.2	<.1	<.1
	163.0-169.5/6.5	0.16	6.41	0.05	<.1	-	<.1	<.1
	169.5-173.0/3.5	6.17	55.2	1.56	.1	.25	<.1	<.1
	173.0-174.0/1.0	2.96	6.41	0.64	.5	.2	.1	<.1
			% Zn Total / oxide leach					
C77-18	118.5-122.0/3.5	0.01	0.18 / 0.14	0.01	-	-	-	<.1
	122.0-125.0/3.0	0.01	0.09 / 0.03	0.01	-	-	-	<.1
	125.0-130.0/5.0	0.01	0.37 / 0.27	0.01	-	-	-	<.1
	130.0-135.0/5.0	0.07	1.18 / 1.10	0.02	<.1	-	<.1	<.1
	135.0-140.0/5.0	0.91	2.84 / 2.77	0.24	.3	.3	.1	<.1
	140.0-145.0/5.0	0.52	0.85 / 0.81	0.18	.6	.35	.2	.6
	145.0-150.0/5.0	0.59	1.64 / 1.65	0.16	.4	.3	.1	<.1
	150.0-155.0/5.0	0.16	2.48 / 2.45	0.08	<.1	-	<.1	<.1
	155.0-160.0/5.0	1.35	4.36 / 4.33	0.43	.3	.3	.1	<.1
	160.0-165.0/5.0	1.37	6.36 / 6.33	0.45	.2	.3	.1	<.1
	165.0-170.0/5.0	5.00	6.94 / 6.80	1.56	.7	.3	.2	.1
	170.0-175.0/5.0	3.20	4.11 / 3.84	0.70	.8	.2	.2	.1
	175.0-180.0/5.0	1.01	2.87 / 2.83	0.28	.35	.3	.1	<.1
	180.0-185.0/5.0	0.30	2.33 / 2.25	0.10	.1	-	<.1	<.1

D.D.H	Interval/Length (feet)	% Pb	% Zn Total / Oxide leach	Ag oz/ton	Ratio (for values ≥0.5% Pb or Zn) Pb/Zn	Ag/Pb	Ag/Zn	Ag/Pb & Zn
C77-18 Con't.	185.0-190.0/5.0	1.59	7.04 / 6.48	0.43	.2	.3	.1	<.1
	190.0-195.0/5.0	0.03	1.39 / 1.26	0.02	<.1	-	<.1	<.1
	195.0-200.0/5.0	0.04	0.96 / 0.87	0.03	<.1	-	<.1	<.1
	200.0-205.0/5.0	0.03	1.77 / 1.56	0.07	<.1	-	<.1	<.1
C77-19	97.0-102.0/5.0	0.25	29.1	0.92	<.1	-	<.1	<.1
	102.0-107.0/5.0	0.51	44.0	1.15	<.1	2.2	<.1	<.1
	107.0-112.0/5.0	4.74	10.8	0.90	.4	.2	.1	<.1
	112.0-117.0/5.0	0.69	4.99	0.18	.1	.3	<.1	<.1
	125.5-130.5/5.0	1.28	2.77	0.32	.5	.25	.1	<.1
	175.0-179.5/4.5	0.19	24.2	0.42	<.1	-	<.1	<.1
	184.5-188.0/3.5	0.09	0.89	0.02	.1	-	<.1	<.1
C77-23	82.0- 86.0/4.0	11.9	5.47	2.78	2.18	.2	.5	.2
	86.0- 90.0/4.0	3.20	1.08	0.60	3.0	.2	.6	.1
	90.0- 93.0/3.0	5.73	18.9	1.84	.3	.3	.1	<.1
	93.0- 97.0/4.0	3.92	21.4	1.18	.2	.3	.1	<.1
	97.0-101.0/4.0	0.32	0.50	0.14	.6	-	.3	.2
	101.0-105.0/4.0	0.08	0.03	0.04	-	-	-	-
C77-24	265.0-267.0/2.0	0.10	5.22	0.10	<.1	-	<.1	<.1
	267.0-272.0/5.0	5.0	19.6	2.42	.3	.5	.1	.1
C77-25	223.0-227.0/4.0	0.06	0.12	0.04	-	-	-	-
	227.0-231.0/4.0	0.15	1.37	0.05	.1	-	<.1	<.1
C77-27	92.0- 95.0/3.0	5.97	20.2	2.24	.3	.4	.1	<.1
	95.0-100.0/5.0	0.34	0.72	0.06	.5	-	<.1	<.1
	100.0-103.0/3.0	15.4	10.7	4.40	1.4	.3	.4	.2

D.D.H	Interval/Length (feet)	% Pb	% Zn	Ag oz/ton	Ratio (for values ≥0.5%Pb or Zn) Pb/Zn	Ag/Pb	Ag/Zn	Ag/Pb & Zn
C77-29	103.0-108.0/3.0	1.28	8.52	0.50	.15	.4	.1	<.1
	131.0-136.0/5.0	6.66	8.22	2.26	.8	.3	.3	.2
	162.0-167.0/5.0	0.48	3.78	0.18	.1	.4	<.1	<.1
	179.0-184.0/5.0	0.48	11.5	0.20	<.1	.4	<.1	<.1

APPENDIX C

LIST OF COMPOSITES AND PRINCIPAL INTERCEPTS

LIST OF COMPOSITES AND PRINCIPAL INTERCEPTS

D.D.H	Interval/Length	% Pb	% Zn	Ag oz/ton	% Pb Zn	Remarks *
C77-1	63.5- 64.0/0.5	25.7	19.2	8.02	44.9	local
	151.0-210.8/59.8'	3.6	5.3	0.96	8.9	main zone
	151.0-159.9/8.9'	12.1	10.0	3.18	22.1	ore
	159.9-194.3/34.4'	Tr	0.3	Tr	0.3	waste
	194.3-210.8/16.5'	6.3	13.1	1.75	19.4	ore
C77-2	106.6-108.6/2'	0.1	3.8	0.03	3.9	local
	303.0-343.0/40'	0.1	0.6	0.06	0.7	(mineralized
	343.0-362.0/19'	1.2	1.3	0.28	2.5	(zone
C77-3	249.4-299.0/38.6'	5.2	13.2	1.82	18.4	main zone
	249.4-255.5/6.1'	1.0	22.0	0.58	23.0	ore
	255.5-269.0/13.5'	Tr	0.3	Tr	0.3	waste
	269.0-288.0/19.0'	10.3	19.6	3.51	29.9	ore
	279.0-288.0/9'	21.1	33.1	7.23	54.2	high grade section
C77-4	71.0-206.4/135.4'	3.9	11.9	1.23	15.8	mineralized zone
	71.0- 88.0/17'	1.0	1.6	0.41	2.6	(mineralized
	88.0-113.6/25.6'	0.2	5.7	0.15	5.9	(wallrock
	113.6-206.4/92.8'	5.5	15.6	1.68	21.1	main zone
	113.6-126.7/13.1'	1.0	13.4	0.47	14.4	ore
	126.7-140.2/13.5'	8.1	26.4	3.40	34.5	high grade
	140.2-177.8/37.6'	3.8	5.8	1.15	9.6	ore
	177.8-206.4/28.6'	5.6	24.5	2.12	30.1	high grade
	433.5-435.0/1.5'	16.4	18.6	4.98	35.0	(faulted segment
	469.0-491.5/22.5'	0.1	2.7	0.08	2.8	(of host
C77-5	95.0-149.0/54'	14.3	15.5	7.66	29.8	main zone
	95.0-117.0/22'	27.3	16.6	14.94	43.9	high grade
	117.0-134.5/17.5'	1.9	8.9	1.38	10.8	ore
	134.5-149.0/14.5'	9.5	23.3	4.31	32.8	high grade

D.D.H.	Interval/Length	% Pb	% Zn	Ag oz/ton	% Pb Zn	Remarks *
C77-6	110.0-113.8/3.8'	0.3	6.6	0.24	6.9	mineralized wallrock
	113.8-184.5/70.7'	12.9	8.1	3.75	21.0	main zone
	113.8-137.0/23.2'	15.2	7.8	4.28	23.0	ore
	137.0-160.0/23.0'	0.3	1.1	0.10	1.4	waste
	160.0-184.5/24.5'	22.6	15.0	6.67	37.6	high grade
	184.5-189.0/4.5'	0.1	3.4	0.06	3.5	mineralized wallrock
C77-7	640.0-646.0/6'	0.6	5.8	0.24	6.4	local
C77-8	No Assay					
C77-9	215.0-245.0/30'	1.2	9.7	0.68	10.9	mineralized zone
	215.0-225.0/10'	2.4	23.8	1.62	26.2	ore
	225.0-240.0/15'	0.2	0.6	0.47	0.8	waste
	240.0-245.0/5'	1.7	9.0	0.70	10.7	ore
	336.0-338.0/2'	2.8	13.0	3.34	15.8	local
C77-10	No Assay					
C77-11	432.0-444.0/12'	2.1	35.4	2.65	37.5	mineralized zone
C77-12	213.0-403.0/190'	0.3	2.2	0.08	2.5	mineralized zone
	213.0-224.0/11'	0.3	10.5	0.12	10.8	local
	216.0-220.0/4'	0.5	19.3	0.20	19.8	local
	333.0-337.0/4'	2.5	28.2	0.67	30.7	local
	386.5-388.5/2'	1.0	19.4	0.33	20.4	local
C77-13	No Assay					
C77-14	No Assay					

D.D.H.	Interval/Length	% Pb	% Zn	Ag oz/ton	% Pb Zn	Remarks *
C77-15	163.0-222.5/59.5'	5.4	20.3	1.83	25.7	main zone
	163.0-180.6/17.6'	5.5	33.1	1.82	38.6	high grade
	180.6-193.8/13.2'	3.2	1.8	0.92	5.0	waste
	193.8-222.5/28.7'	6.3	20.9	2.25	27.2	ore
C77-16	No Assay					
C77-17	15.0- 29.0/14'	4.3	24.1	1.40	28.4	mineralized zone
	15.0- 24.0/9'	6.6	34.8	2.05	41.4	high grade section
	105.0-109.0/4'	0.2	8.5	0.07	8.7	local
	152.0-174.0/22'	1.6	20.3	0.35	21.9	mineralized zone
C77-18	135.0-155.0/20'	0.5	2.0	0.16	2.5	mineralized wallrock
	155.0-190.0/35'	2.0	4.9	0.56	6.9	marginal
C77-19	97.0-117.0/20'	1.5	22.2	0.78	23.7	mineralized zone
	97.0-107.0/10'	0.4	36.6	1.04	37.0	high grade section
	175.0-179.5/4.5'	0.2	24.2	0.42	24.4	local
C77-20	No Assay					
C77-21	No Assay					
C77-22	No Assay					
C77-23	82.0- 97.0/15'	6.2	11.2	1.58	17.4	mineralized zone
C77-24	265.0-272.0/7'	3.6	15.5	1.76	19.1	mineralized zone
C77-25	227.0-231.0/4'	0.2	1.4	0.05	1.6	minor
C77-26	No Assay					

D.D.H.	Interval/Length	% Pb	% Zn	Ag oz/ton	% Pb Zn	Remarks*
C77-27	92.0-103.0/11'	6.0	8.8	1.83	14.8	mineralized zone
C77-28	No Assay					
C77-29	103.0-108.0/5'	1.3	8.5	0.50	9.8	local
	131.0-136.0/5'	6.7	8.2	2.26	14.9	local
	162.0-167.0/5'	0.5	3.8	0.18	4.3	local
	179.0-184.0/5'	0.5	11.5	0.20	12.0	local

*Arbitrary classification, applied to West Zone intercepts:

Unit (%Pb %Zn oz/t Ag)	Class
≥32	high grade
≥16 <32	ore
≥8 <16	ore
≥4 <8	marginal
<4	waste

APPENDIX D

TONNAGE AND GRADE CALCULATIONS, WEST ZONE

APPENDIX D

TONNAGE AND GRADE CALCULATIONS, WEST ZONE

The drill inferred tonnage for the West Zone is approximately 1,000,000 tons grading 8% Pb, 13% Zn and 3 oz/T Ag as determined by the following means:

1. Grade

DDH	Interval	Wt	% Pb	% Zn	Oz/T Ag
C77-5	95.0-149.0	1	14.3	15.5	7.66
C77-3	249.4-288.0	1	5.2	13.2	1.82
C77-1	151.0-210.8	1/2	3.6	5.3	0.96
C77-4	113.6-206.4	1/2	5.5	15.6	1.68
C77-6	113.8-184.5	1	12.9	8.1	3.75
C77-15	163.0-222.5	1	5.4	20.3	1.83

Average grade, weighted by area of influence = 8.5% Pb, 13.5% Zn and 3.27 oz/T Ag.

2. Tonnage Factor

	Specific Gravity	Specific Weight (cu ft/ton)
Galena	7.5	4.3
Sphalerite	4.0	8.0
Dolomite	2.85	11.2
Quartz	2.65	12.0

% Galena = 1.15 X % Pb

% Sphalerite = 1.49 X % Zn

Assume 5% porosity for the West Zone dolomite; therefore the specific weight for dolomite becomes 11.8 cu.ft./T, i.e. 2000 ÷ (.95 X 2.85 X 62.4).

Assume the % gangue is 100% less the percentage of sulfides, and assume the West Zone gangue is proportioned 50% dolomite 50% quartz.

Then, tonnage factor = (% galena X 4.3) + (% sphalerite X 8) + (% dolomite X 11.8) +(% quartz X 12.0).

The average grade for the West Zone deposit is 8% pb,13% Zn, therefore the tonnage factor (TF) for the total volume of rocks under consideration is as follows:-

% galena	=	1.15 X 0.08	= 9%
% sphalerite	=	1.49 X 0.13	= 19%
% gangue	=	100 -(9+19)	= 72%
% dolomite	=	0.50 X 72	= 36%
% quartz	=	0.50 X 72	= 36%

Therefore, TF = (1.15 X .08 X 4.3) + (1.49 X .13 X 8) + (.36 X 11.8) +(.36 X 12.0) = 10.5 cu.ft. per ton

3. Tonnage

Section	Reference Drillholes	Horizontal Length	Depth of Intercept Below Surface
49697 E	C77-11	8.5	370'
49916 E	C77-5	30	80'
50310 E	C77-3	36	225'
50511 E	C77-1,4	45	140'
50694 E	C77-6	34	115'
50895 E	C77-15	51	170'

Average horizontal length (i.e. approx. true width) = 39'
Slope length = 1,400'
Dip length (arbitrary) = 200'
Dip = $\pm$ 75°S.

Therefore, for a section 200 feet down-dip from surface the drill inferred tonnage is 1,040,000 tons,
i.e. 1400 X 200 X 39 ÷ 10.5

APPENDIX E

DEFINITION OF TERMS USED IN FIELDWORK

APPENDIX E

The following outline provides the principal descriptive terms employed in geologic mapping during the 1977 field season.

1. Scale of bedding thickness

< .3 cm	thin laminated
.3- 1 cm	laminated
1 - 3 cm	very thin bedded
3 - 10 cm	thin bedded
10 - 30 cm	medium bedded
30 - 100 cm	thick bedded
> 100 cm	very thick bedded

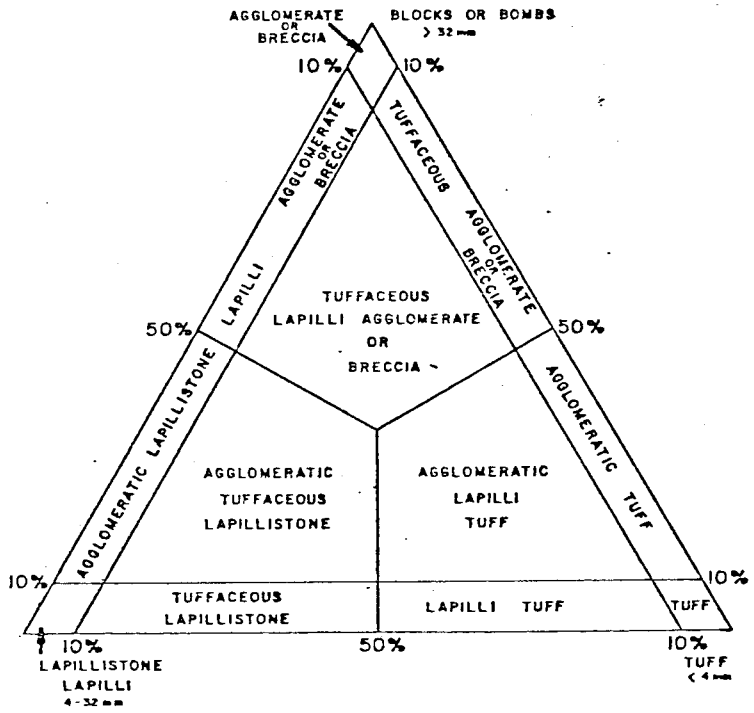
2. Grain size scale for clastics

> 256 mm	boulder
64 -256 mm	cobble
4 - 64 mm	pebble
2 - 4 mm	granule
1/2 - 2 mm	coarse sand
1/4 -1/2 mm	medium sand
1/16-1/4 mm	fine sand
< 1/16 mm	silt

3. Grade scale for dolomite

> 1/2 mm	class "C"
1/16-1/2 mm	class "B"
< 1/16 mm	class "A"

4. Size scale for volcanic fragmentals



5. Colour code

Refer to the Rock-color chart, based on the Munsell Color System, available from the Geological Society of America, Inc., P.O. Box 1719, Boulder, Colorado 80302.

A. Saturation (Chroma) is defined by a scale which varies from neutral gray to full intensity of a particular hue, and is most conveniently obtained from the colour charts.

B. Colour Range (Hue)

Rock Color Chart	Description
5 R	moderate red
10 R	red orange
5 YR	red brown
10 YR	yellow brown
5 Y	yellow
10 Y	green yellow
5 GY	moderate yellow
10 GY	yellow green
5 G	moderate green
10 G	pale green
5 BG	blue green
5 B	moderate blue
5 PB	purple blue
5 P	purple
5 RP	red purple

C. Grayness (Value)

Rock Color Chart	Description
N 9	white
N 8	very pale gray
N 7	pale gray
N 6	medium pale gray
N 5	medium gray
N 4	medium dark gray
N 3	dark gray
N 2	grayish black
N 1	black

APPENDIX F

COORDINATES OF DRILLHOLES AND CONTROL STATIONS

DRILL HOLE SUMMARY

DDH	NORTHING	EASTING	ELEV.	DIP	AZIMUTH	DEPTH
C77-1	41395	50508	4497	45	000	467
C77-2	41395	50508	4497	63	000	467
C77-3	41359	50307	4403	45	000	395
C77-4	41679	50514	4529	45	180	615
C77-5	41631	49916	4261	45	180	435
C77-6	41648	50683	4588	46.5	180	502
C77-7	41636	51105	4714	48	180	785
C77-8	41724	49697	4168	45	180	407
C77-9	41302	48800	4094	53	000	534
C77-10	41308	48504	4005	51.5	000	515
C77-11	41163	49699	4076	54	003	557
C77-12	32515	74481	2619	48	359	557
C77-13	41120	50104	4258	50	000	591
C77-14	32954	74499	2578	46.5	174	637
C77-15	41076	50895	4608	52	000	675
C77-16	33050	73933	2577	51	180	487
C77-17	32817	74499	2589	40	180	201
C77-18	41177	51299	4798	45	000	422
C77-19	38983	59605	4894	45	225	847
C77-20	41457	50515	4511	45	040	335
C77-21	40912	50706	4542	51	000	875
C77-22	39055	59681	4908	45	225	447
C77-23	38862	59752	4757	45	225	443
C77-24	41224	50706	4544	45	040	495
C77-25	38864	59753	4757	67	225	498
C77-26	41131	50312	4363	46.5	000	672
C77-27	38945	58999	5032	46	055	800
C77-28	41130	50312	4363	67	000	715
C77-29	38944	58998	5032	90	000	380

CONTROL POINT CO-ORDINATES

Traverse points are plotted in the following compilation showing the sea-level reduced distances from point to point and the forward and reverse astronomic bearings between points. This data is required for computation of geographic co-ordinates, i.e. latitude and longitude (Ref. Thomson, Streit & Jensen Ltd.).

In addition, rectangular co-ordinates are computed for the West, Discovery, and Trent Zones based on the selected grid origin of 40000 N, 50000 E. The bearings shown will be grid bearings, but are based on the Meridian passing through the grid origin. The convergency from a grid bearing to the astronomic bearing amounts to a maximum of about six minutes of arc toward the east boundary of the Trent Zone. These bearings are computed by applying the field angles of a traverse to the astronomic bearing derived for one of the traverse legs, Photo Origin - Tag 753.

The geographic and U.T.M. co-ordinates for the main control points are listed. These will be required for any extension of the survey control or as a legal survey origin.

Final submission
per Aug. 5,1977.

LIST OF CONTROL POINT CO-ORDINATES File 2228

(unadjusted)

STA	Geographic Co-ordinates Latitude	Longitude	UTM - Zone 8 (Central Meridian-135° Easting (X) (Meters)	Northing (Y) (Meters)	Elev. (Feet)
Trig Sta.					
65-A-53	64°14'12.02"	133°28'48.85"	573703.2	712 4072.6	6188.3
65-A-54	64°08'44.88"	133°32'20.09"	571090.5	7113881.3	5945.0
#779	64°09'24.73"	133°22'29.36"	579042	7115308	4841.8
#766	64°09'22.94"	133°22'15.03"	579237	7115258	4795.0
#796	64°09'24.65	133°20'31.08"	580639	7115347	4871.7
#725	64°09'23.55"	133°19'04.69"	581807	7115343	4962.3
#694	64°09'30.31"	133°17'55.81"	582732	7115577	4846.0
#761	64°08'47.66"	133°16'45.78"	583714	7114283	3777.5
#551(67-20)	64°09'05.30"	133°19'35.96"	581400	7114767	5231.6
#751	64°08'10.2136"	133°16'59.2967"	583562	7113119	2754.2
#565(TN1)	64°08'01.50"	133°13'50.39"	586123	7112919	2818.8
#622	64°10'10.86"	133°07'08.46"	591438	7117078	4221.2
#745	64°08'18.94"	133°03'20.36"	594623	7113707	4492.3
#778	64°07'58.96"	132°56'27.41"	600224	7113265	4830.6
#311	64°06'29.58"	132°49'22.91"	606057	7110690	4846.6
#659	64°06'23.23"	132°47'45.31"	607384	7110539	4592.9
#563	64°06'25.37"	132°45'29.40"	609220	7110670	5140.1
#799	64°06'26.13"	132°44'17.88	610187	7110727.	4478.3
Trig Sta					
65-A-57	64°04'12.38"	132°38'31.06"	615032.4	7106759.6	4839.7
(Listed Trig Station Co-ordinates)					
	64°04'12.16"	132°38'31.04"	615032.9	7106752.8	4841.0
#691	64°09'26.04"	133°23'29.31"	578231	7115328	4093.5
#753	64°09'43.93"	133°24'25.48"	577458	7115863	4700.7
Photo origin (40,000N 50,000E)	64°09'13.20"	133°23'02.15"	578608	7114940	4254.2
#615	64°10'15.36"	133°26'56.65"	575393	7116785	4438.0
#550	64°10'14.03"	133°29'44.99"	573121	7116689	4409.8
#770	64°10'17.79"	133°33'17.82"	570245	7116739	4396.7
#757	64°10.24.83"	133°36'13.48"	567869	7116904	4478.9
#318	64°10'00.59"	133°38'24.43"	566117	7116115	4918.2
#593	64°10'22.51	133°41'13.55"	563819	7116746	5015.7
#617	64°10'31.99"	133°45'57.84"	559975	7116962	5074.3
STN 'A'	64°15'56.05"	134°03'31.04"	545608	7126750	5345.8
Trig Stn 64G55	64°16'18.50"	134°03'21.67"	545723.7	7127446.8	5502.2
Listed Trig Station Co-ordinates					
	64°16'18.28"	134°03'21.98"	545719.6	7127439.9	5492.2

RECTANGULAR CO-ORDINATES

Grid Origin - Photo Point 40,000N, 50,000E (64°09'13.20", 133°23'02.15")
Bearings are derived from line Grid Origin to Tag 753 - N49°47'39"W
All bearings for Discovery and Trent Zones are grid Bearings referred to the Astronomic Meridian passing through 40,000N, 50,000E

West Zone - Discovery Zone

STA	Northing	Easting	Elevation
Origin	40000.00	50000.00	4254.2
#753	43123.57	46304.52	4700.7
#779	41172.01	51454.53	4841.8
#691	41307.42	48795.50	4093.5
#766	40990.68	52090.13	4795.0
#796	41165.88	56700.89	4871.7
#725	41057.41	60533.13	4962.3
#694	41748.40	63587.52	4846.0
#761	37418.58	66699.58	3777.5
#751	33612.19	66104.81	2754.2
551(67-20)	39202.79	59147.09	5231.6
#714	39153.46	59773.46	5146.7
#689	38977.01	59731.32	4835.3
#630	38798.37	60193.58	4700.0
#868	38625.39	60641.19	4481.1
#633	38512.00	60934.58	4504.8
#560	38306.45	61466.47	4402.4
#862	38659.49	58310.86	5047.4
#762	37838.15	58830.92	4748.2
#756	37745.12	59032.47	4610.3
#768	37638.31	59321.11	4406.5
#979(TD#9)	38906.47	59462.02	4977.5
#732	37921.33	61058.68	4341.7
#618	38898.86	59470.11	4973.9
#652	38645.32	59739.57	4661.4
#750	38318.29	60087.13	4374.8
#693	38201.18	60241.35	4361.2

Trent Zone

#565	32741.44	74491.68	2618.8
B/L 0+00W	32685.02	74514.77	2606.1
B/L 5+00W(#735)	32856.51	74045.73	2612.6
Tag 867	33008.99	73951.12	2590.2
C-12	32514.71	74480.70	2619.1
C-14(casing)	32954.24	74498.52	2578.2
C-17(casing)	32817.05	74499.14	2589.3
C-16	33049.69	73932.77	2576.8

File #2228

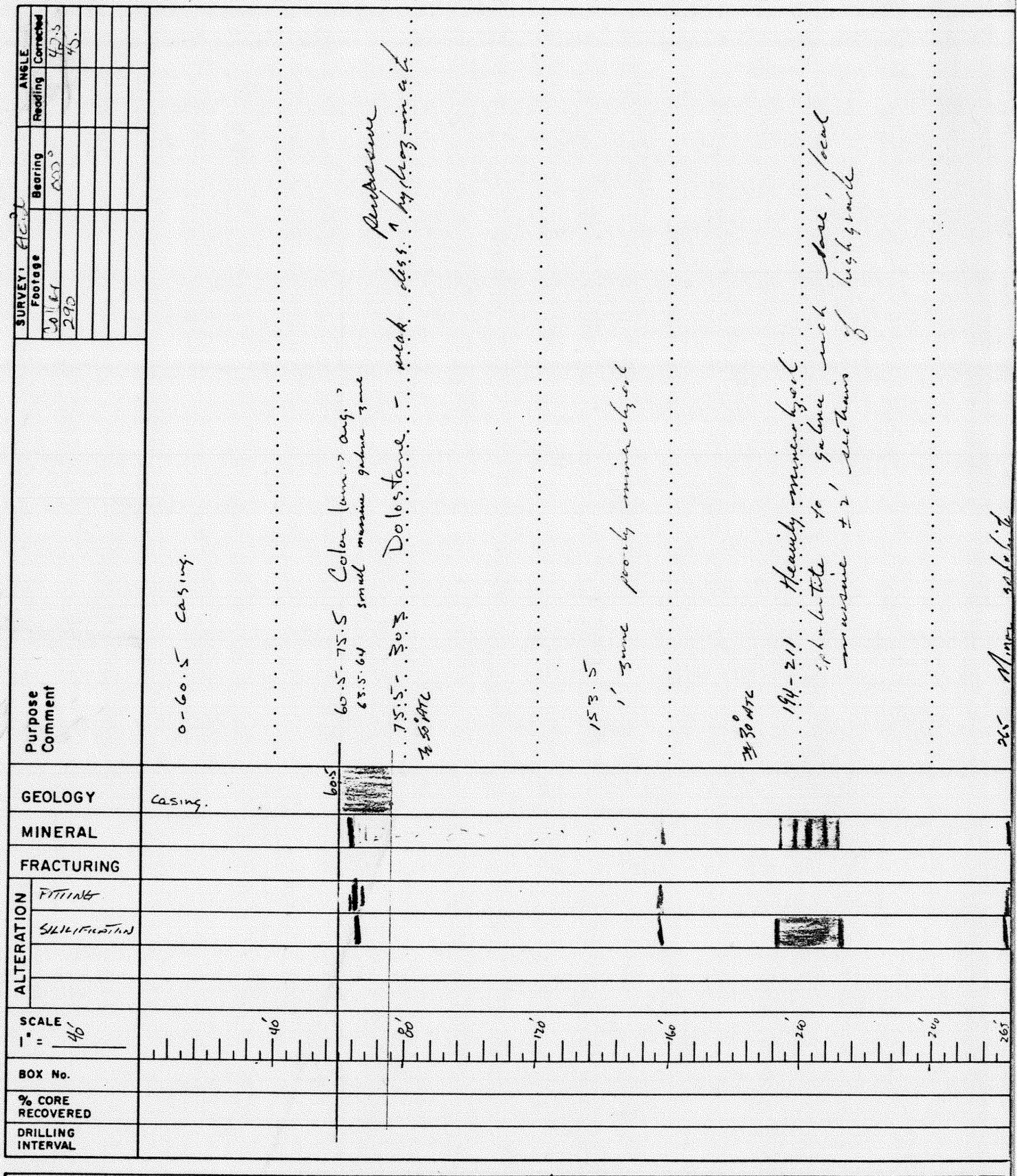
WEST ZONE DRILL HOLE CO-ORDINATES

STA	Northing	Easting	Elevation
id Origin	40000.00	50000.00	
#753	43123.57	46304.52	
C77-1	41395.45	50508.18	4496.5
C77-2	41395.45	50508.18	4496.5
C-77-3 *	41358.57	50306.63	4402.9
" -4 *	41678.98	50514.22	4528.9
-5	41630.55	49916.48	4260.7
-6	41648.30	50683.00	4588.1
-7	41635.60	51105.27	4713.7
-8	41723.62	49697.36	4168.3
-9	41302 ±	48800 ±	4093.5
-10	41307.97	48504.43	4005.1
-11	41163.28	49698.93	4075.8
-13	41120.34	50103.81	4257.7
-15	41075.80	50894.96	4608.2
-18	41177.48	51298.56	4798.3
BL 0+00W	41243.05	51425.28	4817.6
6+00W	41329.80	50830.96	4617.5
9+00W	41373.46	50531.74	4504.5
11+00W	41403.05	50333.41	4417.9
12+00W	41417.55	50234.66	4375.8
16+00W	41475.80	49834.41	4190.9
22+51W	41573.59	49212.84	3818.7
Claim post #1 post Craig #5 & 6			
#2 post Craig #7 & 8	40871.83	50290.14	4339 ±

* Shot taken on casing

APPENDIX G

DRILLHOLE LOGS, 1977



Length 467'
Bearing 000°
Dip 45°
Lat. 41395
Dep. 50501
Elev. 4497
O.B. Thickness 42'
B.R. Thickness

Contractor DJ Coates (L 38)
Core NQ 0-130' BQ 130-467'
Stored Tatlo Lake
Casing 50' pulled
Logged by MOP
Date 1 July 77
Location West Zone
Started 15 June 77
Finished
Started
Finished 17 June 77

LOG. INTERLEVEL

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C77-1
Project Craig
Claim

Page 1 of 2

SURVEY: Footage	Bearing	ANGLE: Reading	Corrected

Purpose
Comment

6° Atc
262 - 372 Dark grey Argillite - locally graphitic pyritic adjacent upper contact.

372 - 388 Talcose Grey Talc Schist

388-438 Grey talc unit

430 - 467 Black graphitic argillite

467 EOH

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = _____

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by AoB Date 1 July

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No. C77-1

Project Craig

Claim _____

Page 1 of 1

SURVEY: Acid 24 ga.		ANGLE	
Footage	Bearing	Reading	Corrected
Collar	033°		-63°
467			-56°

Purpose
Comment

0-46 Casing

46 - 54 Rock flour - pieces of core

54 - 106.5 Dark grey, silty graphitic

54-74 missing section of core

80 - 105 missing section of core

30° ATC 71.5 - 74.5 mod. well mineralized sph - py zone

106.5 - 393 Dolostone

55° ATC. Stratiform fold

107 strong leached zone, rusty, massive with recurrent oxidized

Zone of weak to mod. py + sph mineralization

GEOLOGY: Casing.

MINERAL

FRACTURING

ALTERATION: Pitting; Silicification

SCALE 1" = 40'

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length 467'
Bearing 033°
Dip -63°
Lat. 41395'
Dep. 50508
Elev. 4497
O.B. Thickness 42' Started 17 June Finished
B.R. Thickness Started Finished 18 June 1977

Contractor DW Coates (L38)
Core BQ Stored Tara Lake
Casing 42' (Dallas)
Logged by SAB Date 1 July 77
Location West Zone

Log: INTERCEPTS

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C 77-2
Project Craig
Claim

Page 1 of 2

SURVEY! Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose
Comment

264 - 304 Broken weak min. zone.

326 - 357 Mod. veined by a few thin .5 - 1 / 2 cm.

340 - 393 - 467 Dark to grey argillite
1/2 - minor weak spiral vein 5% py min

340° NTZ.

EOH 467

GEOLOGY

MINERAL

FRACTURING

ALTERATION
Bl/Hng.
Si.

SCALE 1" = 40'

264 280 320 360 400 440 480 467

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by ADB Date 1 July 77

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No. C77-2

Project Craig

Claim _____

Page 2 of 2

SURVEY: Acid 24mm		ANGLE	
Footage	Bearing	Reading	Corrected
Collar	000°		45°
200			35°
395'			37°

Purpose Comment

0-26 Casing

26-191 Argillite - Grey

191-310 Dolostone

191 - 2?? Stratified dolo

2W - 3?? Massive crackle dolo

2?? - 2?? Well mix.

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = _____

40 80 120 160 200 240

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length 395'
Bearing 000°
Dip -45°
Lat. 41359
Dep. 50307
Elev. 4403
O.B. Thickness 25'
B.R. Thickness _____

Contractor DW Cootes (138)
Core BQ. Stored Jare Lake
Casing 30', left in hole
Logged by Ash Date 1 July 77
Location West Zone
Started 19 June Finished _____
Started _____ Finished 20 June 11:30 pm

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT
Hole No. C77-3
Project Area C
Claim _____
Page 1 of 2

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

Purpose
Comment

269- 270 Mod. mod. coarse sphalerite mx.
275- 289 Moderate mineralization throughout

14' Overburden

310- 395 Argillite

336- 338 Green grey talc hyg.

344- 371 Black very graphitic arg.

371- 383 Tuff, mod. talc gouge

383- 395 Talc Tuff

395 EOH

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = _____

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by ASR Date 15 Aug 77

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No. C77-3

Project Craig

Claim _____

Page 2 of 2

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose Comment

40-52 Black arg. - mafic bands.

52-106 Crumble brecciated Massive clots.

89-90 massive sphal. - gn veinlets

106-373 Sporadic veinlet clots.

115 degs. mine.

127-141

GEOLOGY: Casing

MINERAL

FRACTURING

ALTERATION: Oxidation; Silicification

SCALE 1" = 40

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Angle To Core: 24 | 35 | 65 | 45 | 30

Length 615'
Bearing 160°
Dip -45°
Lat. 41679
Dep. 50514
Elev. 4529
O.B. Thickness 30'
B.R. Thickness

Contractor DWJ Coates (L38)
Core BQ
Casing 40' - left in hole
Logged by A.L. Date June 77
Location West End

Started 22 June
Started
Finished
Finished 23 June 77

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C-77-4
Project Crais
Claim West Zone

Page 1 of 3

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose
Comment

373 - 379 Fault Zone

379 - 432 Laminated dark grey arg. lido. siltstone

432 - 526 Dolomite

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = 40

	280	320	360	400	440	480	520
BOX No.	40	50	38 42	60	45		
% CORE RECOVERED							
DRILLING INTERVAL							

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by AOB Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

C77-4

MCINTYRE MINES LIMITED

EXPLORA

Hole No. C77-4

Project Craig

Claim __

Page 2/3

SURVEY: Footage	Bearing	ANGLE: Reading	Corrected

Purpose
Comment

526 - 615' Interbedded black arg - med. grey lst.

615 EOH.

up.

Calcsyte. 5 Core Lengths. angle. Same as Tool. Lightning — right way ways with magnet to Core.

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = 40

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by AOB Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No. 77-4

Project Area B

Claim _____

Page 3 of 3

Length	435'	Contractor	D.W. Cooke & Sons
Bearing	180°	Core	B.Q.
Dip	-45	Casing	30'
Lat.	41631	Logged by	[illegible] Date 30 June 77
Dep.	49916	Location	Wheat Zone
Elev	4261	Started	24 June
O.B. Thickness	231	Finished	
B.R. Thickness		Started	26 June Finished 27 June

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Stored Tasu Lake

Hole No 77-5
Project
Claim

Page 1 of 2

SURVEY: Acid 24 mm		ANGLE	
Footage	Bearing	Reading	Corrected
Collar	-	-	45
250'	-	55	47
435' EOH	-	40	32

Purpose
Comment

DRILLING INTERVAL | % CORE RECOVERED | BOX No. | SCALE 1" = 40' | ALTERATION | FRACTURING | MINERAL | GEOLOGY

0-30 Casing

30-149 Massive Dolostone - Cracked / brecciated

55-64.5 decs. sm, sph., smith. broken rubbly core

89

89-95 Well mineralized

95-115 Heavily mineralized — Core broken and rubbly 95 & 105
Steel galena, coarse bx. sphal. — Heavily oxidized & pitted, fractured
30° ATC Cont. massive steel galena/white — see core @ 115
at 115 pyrite mottled sucrose.

115-138 Well-[illegible] min. locally massive 1' sections
126, 130, 134 - mod.-heavy sph/galena

138-149 massive well min. sections, coarse bx sph/steel galena/tetrahedrite

149

149-182 Stratiformulate Dolostone - local rubble bx.
Stylolitic

182-189 Color lam. H.W. Hng. package

60° ATC 182-205 Dark arg. - Color laminated arg. 182-188

189

Fault Zone 205' 205-435 Dark grey and Grey arg., grey lst. F.W. Hng. package ?

205-216 very graphitic

205-290 Dark grey arg
Transitional to
35° ATC 290- Grey soft lam. l/l.

77-5

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose
Comment

Dk. red grey, to medium grey
- 40° ATC (approx. (shoulders.)

EOH

GEOLOGY

MINERAL

FRACTURING

ALTERATION
- Ox & Pt.
- Sil. (Rock)
- Sil. filled

SCALE 1" = _____

240 280 320 360 400 435

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by AoB Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

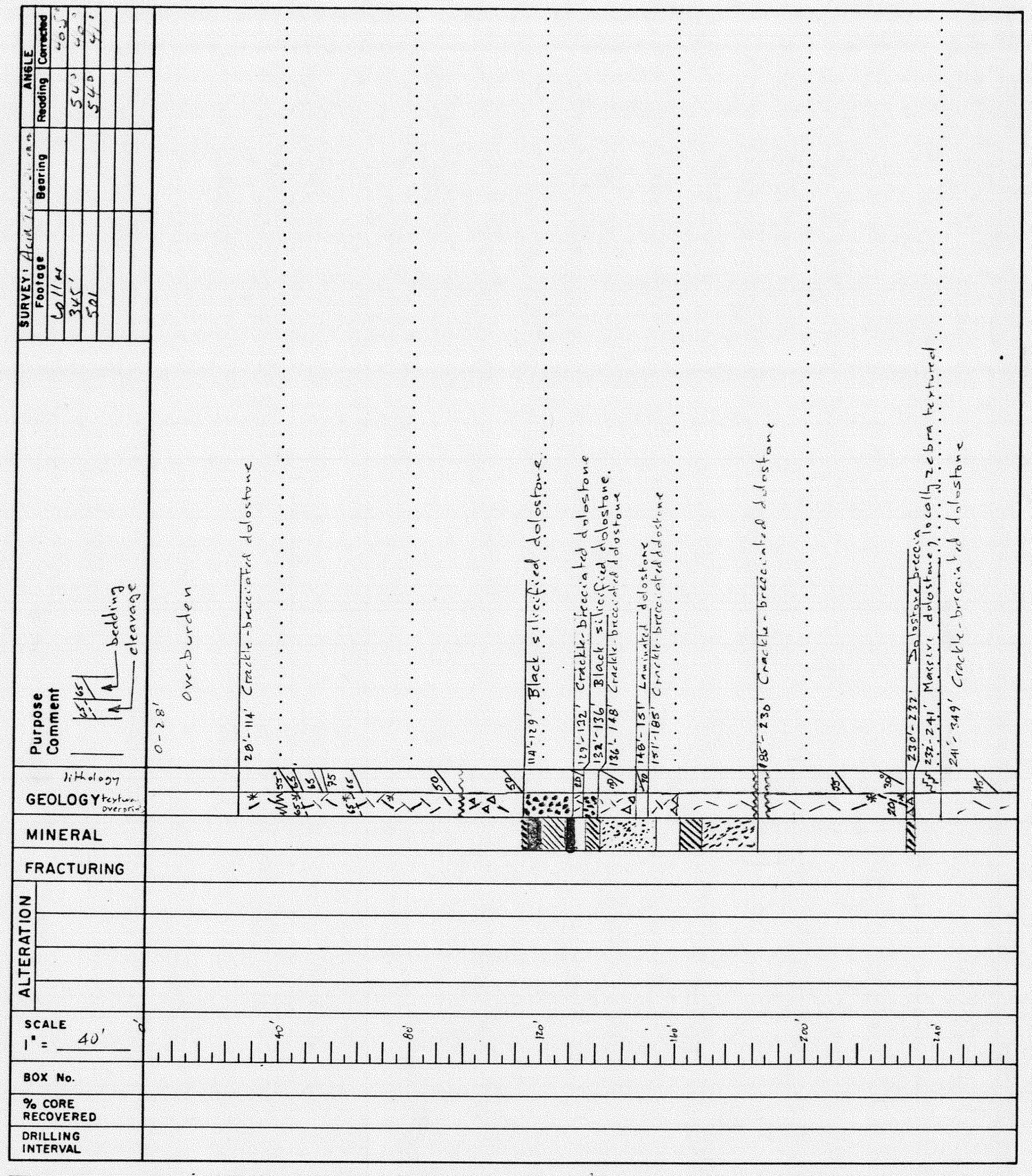
EXPLORATION DEPARTMENT

Hole No C 77-5

Project _____

Claim _____

Page 2 of 2



Length 512'
Bearing 180°
Dip -90.5°
Lat. 41668
Dep. 50683
Elev. 4588
O.B. Thickness 20'
B.R. Thickness

Contractor DWI Coat. (L381)
Core BQ
Casing 28' - pulled
Logged by A.M.S.C.B.K. Date Dec. '77
Location
Started 27 Dec.
Finished
Started
Finished 28 Dec. 77

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C-77-6
Project Craig
Claim

Page 1 of 2

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose
Comment

GEOLOGY (lithology, structure, description)

MINERAL

FRACTURING

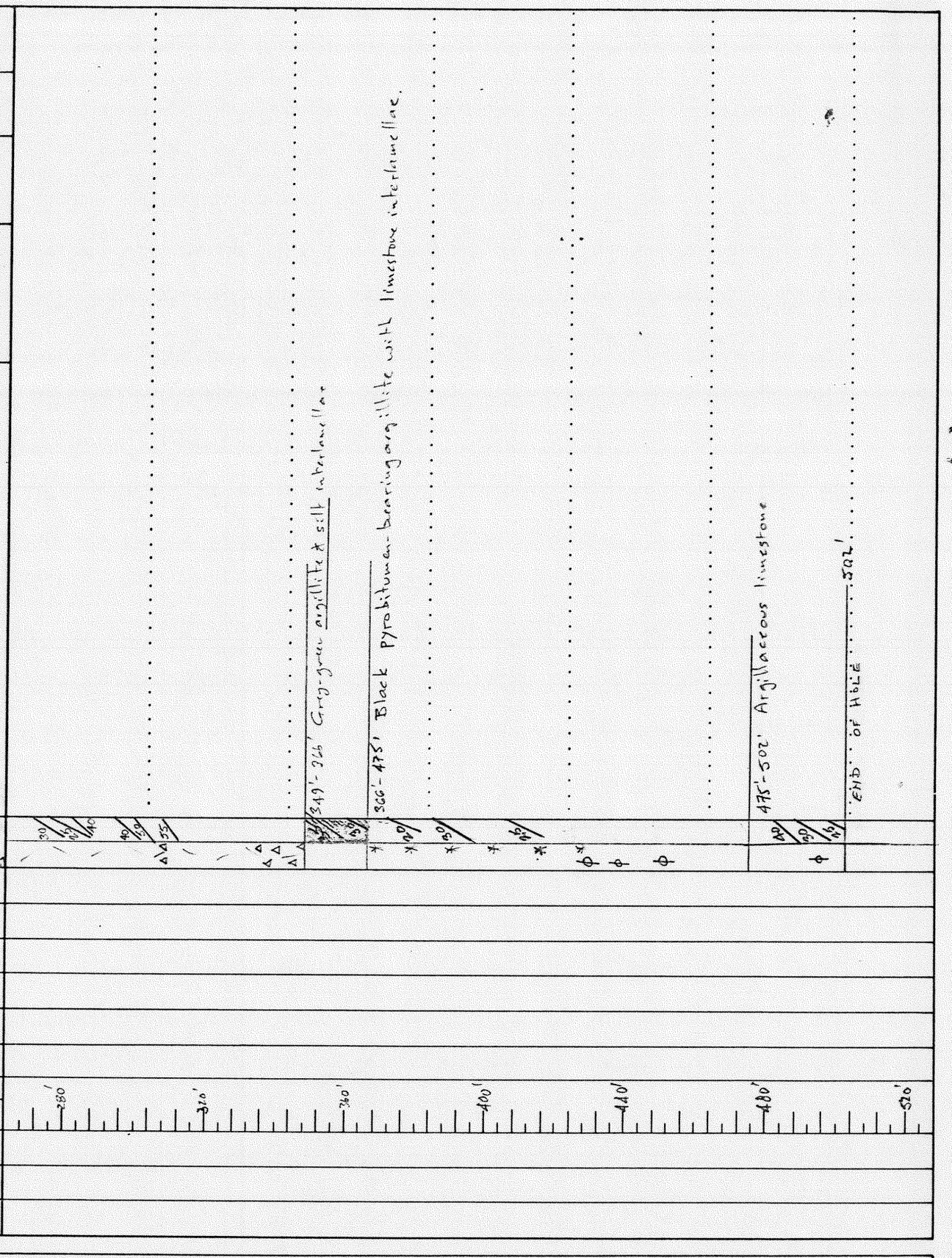
ALTERATION

SCALE 1" = 40' (264')

BOX No.

% CORE RECOVERED

DRILLING INTERVAL



Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by A.M.S Clark. Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

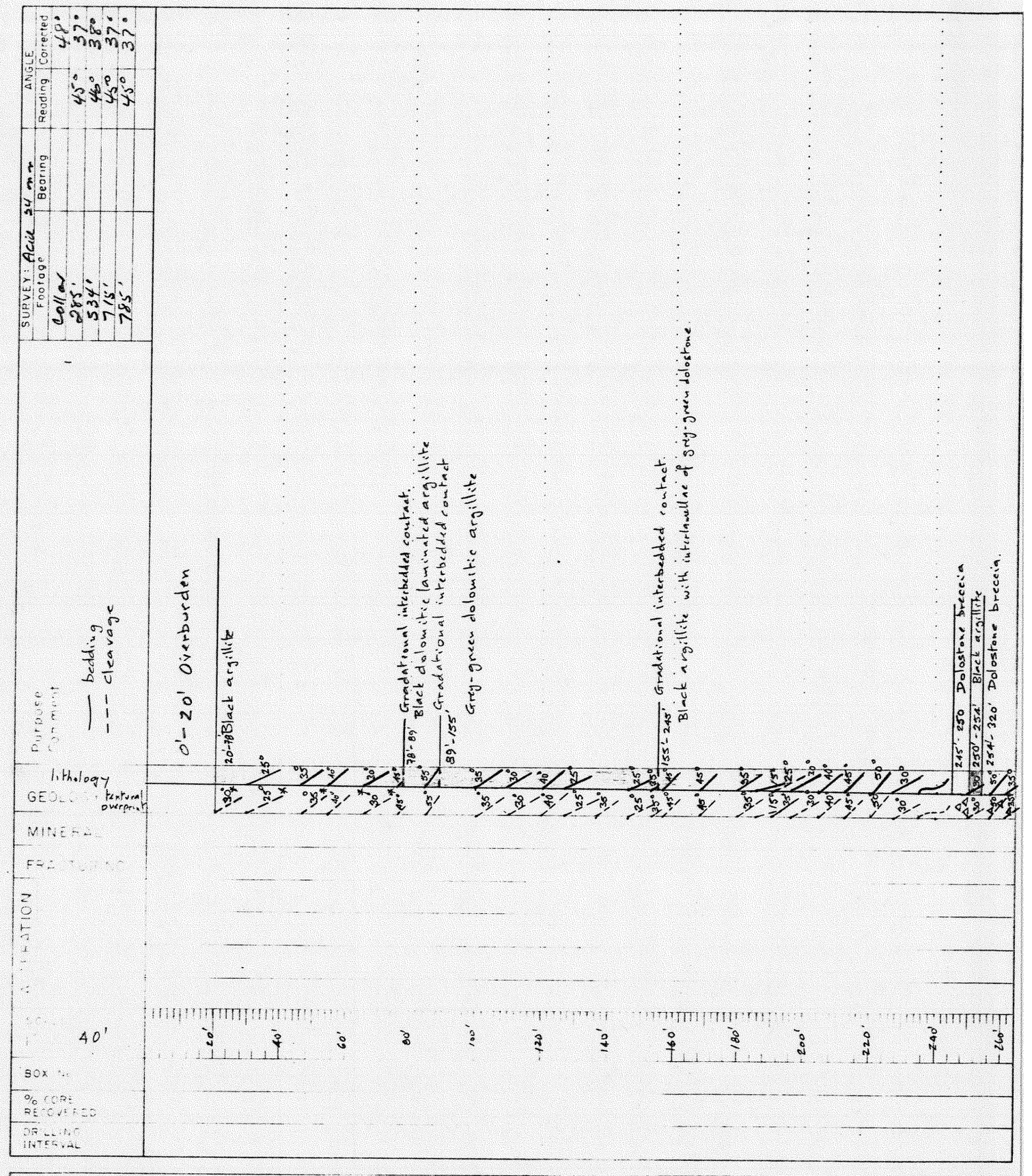
McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C77-6

Project Craig

Claim _____

Page 2 of 2

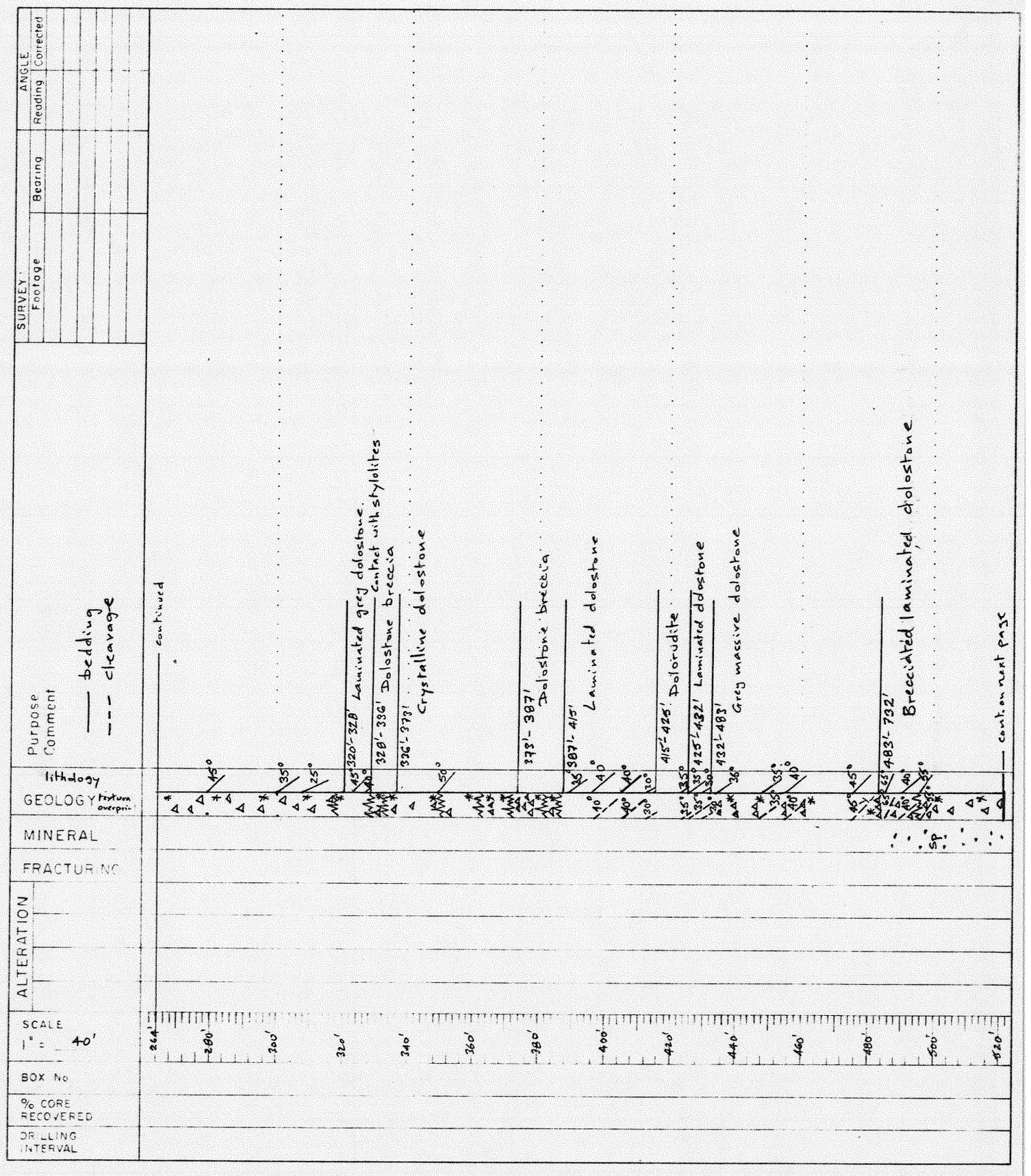


Length 785'
Bearing 180°
Dip -48°
Lat 41636
Dep 51105
Elev 4714
O.B. Thickness 17'
B.R. Thickness

Contractor Coates Enterprises — Longyear L 38
Core BQ Stored Tara Lake Camp
Casing Removed from hole. BQ 20'
Logged by A.M.S. Clark Date 4-6 July 77
Location
Started 29 June 77 Finished 30 June 77
Started 30 June 77 Finished 1 July 77 10 Am.

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C-77-7
Project Craig
Claim



Length ____ Contractor ____

Bearing ____ Core ____ Stored ____

Dip ____ Casing ____

Lat ____ Logged by A.M.S. Clark

Dep ____ Location ____

Elev ____

O.B. Thickness ____ Started ____ Finished ____

B.R. Thickness ____ Started ____ Finished ____

McINTYRE MINES LIMITED

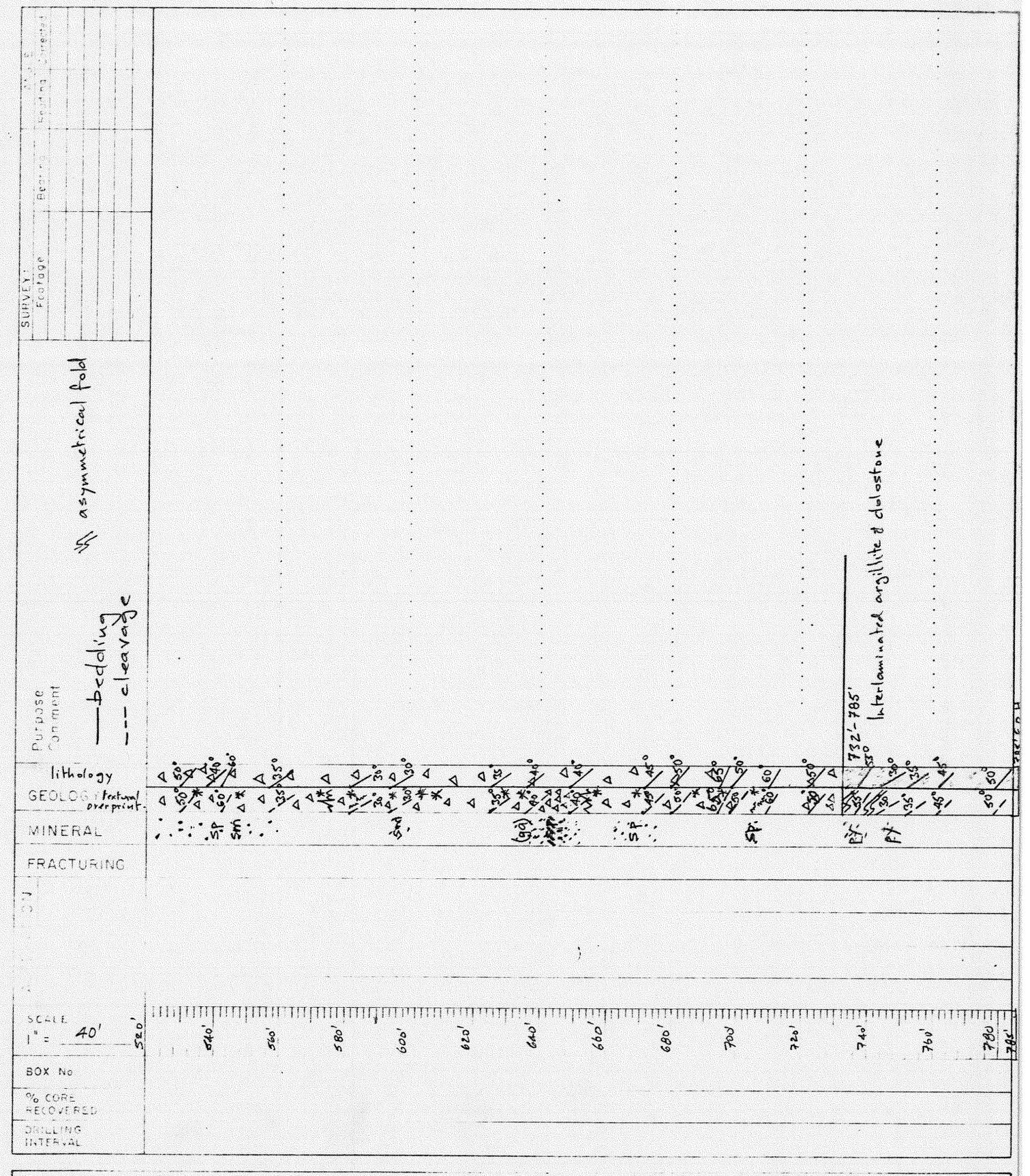
EXPLORATION DEPARTMENT

Hole No C-77-7

Project Craig

Claim ____

Page 2 of 3



Length
Bearing
Dip
Cut
Dep
Elev
O B Thickness
A B Thickness

Started
Started

Contractor
A.M.S. Clark
Finished
Finished

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C-77-7
Project Craig
Claim

Page 3 of 3

SURVEY	Footage	Bearing	Angle Reading	Angle Corrected
	0'	180°	-5°	47°
	185'			
	300'			

Purpose
Comment

20' casing.

20'-165' pale green talcose argillite
165'-175' maroon talcose argillite
175'-192' greenish grey talcose argillite
192'-227' pale green argillite w. fresh colored fracturing.
Clay development common in areas of shattered core.
[illegible] 22' highly [illegible] core, possible [illegible] zone.

227' 227-230' silty grey to blk argillite
230-257.1' interbedded dk grey argillite & siltstone
dk grey argillites & grey siltstones
talcose zone

GEOLOGY
MINERAL
FRACTURING
ALTERATION

SCALE 1" = 110'

BOX No
% CORE RECOVERED
DRILLING INTERVAL

Length 407'
Bearing 180°
Dip -45°
[illegible] 41724
Dep 49697
Elev 4168
[illegible] 15'

Contractor D.W. Coates L-38
Core BQ Stored TARN LAKE
Casing 20' BQ Dulled
Logged by W.E.K. Date July 9 1977
Location West Zone

Started 2 July 1977 Finished
Started Finished 6 July 1977 7 Am.

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C-77-8
Project Craig
Claim

Page 1 of 2

Length — Core —
Bearing — Core —
Dip — Casing —
Lat — Logged: WEK
Dep — Logged —
Elev —
O.B. Thickness — Started —
B.R. Thickness — Started —

Finished —
Finished —

Claim —

Page 1 of 2

MCINTYRE

C-77-8

Scale 1" = 40'

BOX No.	% CORE RECOVERY	DRILLING INTERVAL

ALTERATION | FRACTURE | MINERAL | GEOLOGY

Purpose
Comment

SURVEY:

Footage	Bearing	ANGLE Reading	ANGLE Corrected

20°

257.1' / 261.0' 250.1'-261.0' Pyritic, sandy, siliceous dolostone with inclusions of argillite

273.1' 261.0'-273.1' M grey dolomitic argillite with sandy siltstone lamellae

281.5' 273.1'-281.5' Pyritic blk. graphitic argillite

20°

281.5'-312' lt grey sandy dolostone crackle brecciated.

312' / 315.4 315.4-324 Straticulated dolostone ≈ parallel to core axis.

324' 324-364 Crackle brecciated m-lt. grey calc. dolostone

312-315.4' mixture of smithsonite & calcite as breccia matrix

315.4'-333.0' Possitive Zn-test on light orange fracture coating.

364' 364.0-376.5' calc. dolostone breccia fragments are straticulate ≈ parallel to core axis.

376.5 Rubble brecciated calc. dolostone.

407 E.O.H.

Length 534'
Bearing 000°
Dip -53°
Lat. 413027 ±
Dep. 48800 ±
Elev 4094
O B. Thickness
B.R Thickness

Contractor D.W. Coates
Core NB→NH' BQ→534'
Casing 32' left in hole
Logged by W.E.K.
Location Clipper Zone

Started 7 July 1988
Started

TARA MINE.

Finished July 12 1988 4pm.

C-77-9
Craig.

SURVEY Acid 24 mm : Spony Sun		
Foot	Bearing	Dip
Collar		53°
150'		53°
305'		52°
325'		55°
440'		51°
530		50°

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 40'	ALTERATION	FRACTURING	MINERAL	GEOLOGY	Purpose Comment
			20'					0-32' casing.
			40'				32' 60°	32-91 Interbedded & interlaminated dk. grey to blk argillite & lt. M. grey, M crystalline limestone. weak pyritization throughout small oolitic sections around 55'
			80'				75°	
							91' 63°	Straticulated dolostone grite stylolitic with minor Zebra texture and some pseudo-oolites.
			120'				73° 57°	
			160'				62° 79°	172-184 pseudo-oolites very common.
							84°	
			200'				54° 30° 214.9	dk grey highly silicified material, retains texture & fabric of a dolostone.
			240'				60°	
							244.3	M.-Lt grey dolostone. straticulate; Zebriated & stylolitic throughout
			280				70°	
			282				68°	

@ 93-95.5 Weak sphalerite mineralization as Zebra & sat'n breccia infilling with sparry dolomite.

@ 134 disseminated sphalerite along a M grey dolomite veinlet

@ 170 & 173 very finely disseminated sph. along partially weathered veinlets

@ 207.2-208.2 finely disseminated sph. in a highly silicified zone.

@ 215-224.4 Lt. brn sph. as veining & breccia filling minor galena, sph. crystals to 1.5cm sph : GN ≈ 10:1

@ 224.4-241 sparce finely disseminated sph. with minor GN. occasionally as breccia matrix.

@ 241-248 sph. as a minor component of breccia matrix.

R

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat _____ Logged by WEK Date _____

Dep _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No 77-9

Project Craig

Claim _____

Page 2 of 2

BOX No.	% CORE RECOVERED	DRILLING INTERVAL

SCALE 1" = _____

ALTERATION | FRACTURING | MINERAL | GEOLOGY

Purpose
Comment

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

28.2

320

360

400

440

480

520

540

77°

60°

75° 335.5' Highly silicified zone
341.5'

M-Lt.M. grey stylolitic dolostone
M. crystalline.

65°

70° 390'-395.3' tectonic breccia (Fault)

71° 405' Interbedded dk. grey argillite & Lt grey near micritic
406.7' limestone
410.7 406.7-410.7 dk. grey silty pyritic argillite
419.4 410.7-419.4 Rubble-Near Crackle brecciated dolostone Lt grey frag. Blk matrix.

65° 419.4'-454.1' dk. grey slightly silty argillite

90° 454.1' 454.1'-465.3' talcy dk grey argillite

465.3'
90° 468.2' 465.3'-468.2' pale green with flesh colored bands; talcy argillite

468.2'-534' Talcy argillite varying hues of dk-dk.M. grey

60°

80°

70°

78°

72°

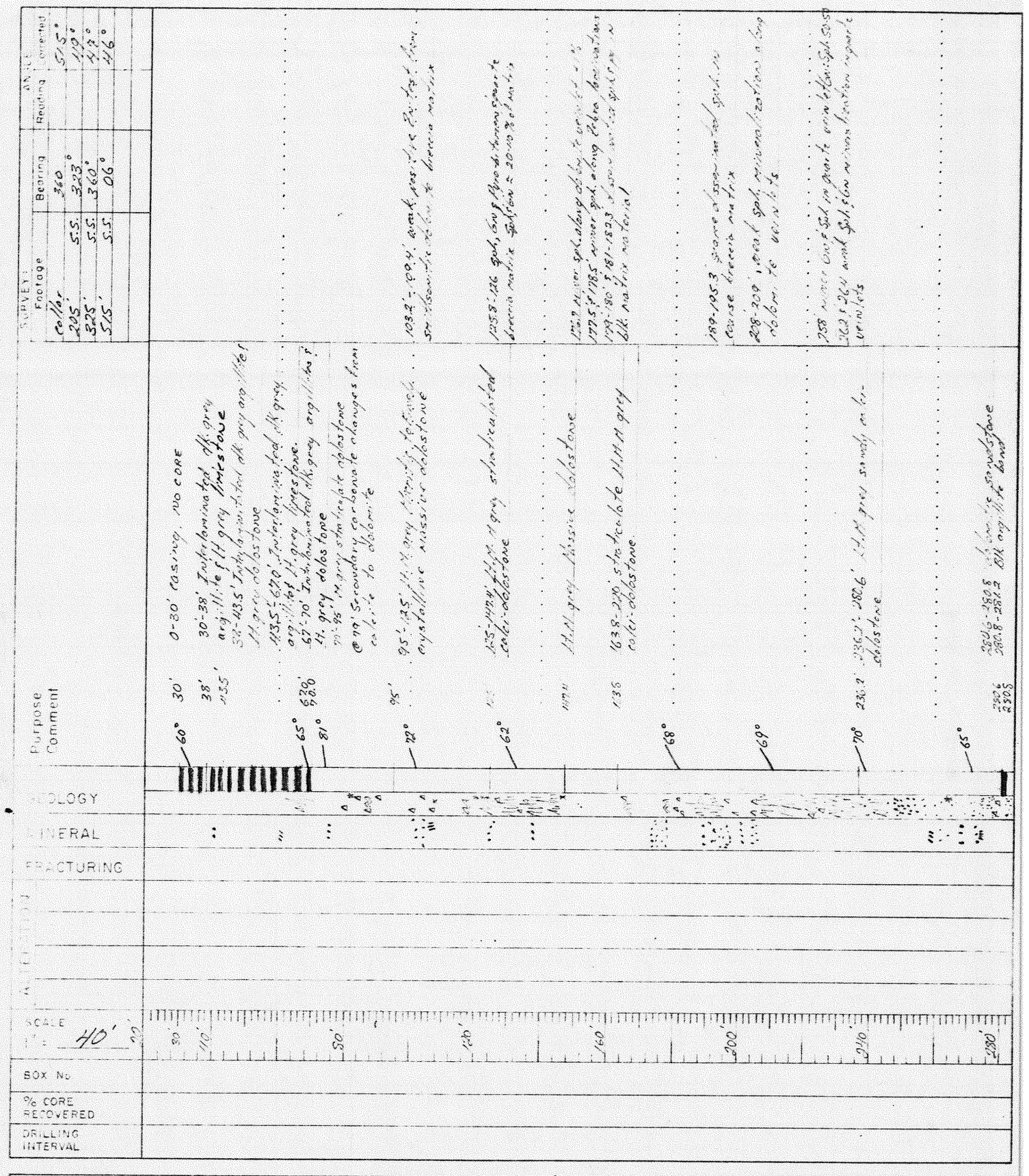
534' E.O.H.

335.5-339.3 splotches of dusty sph.; very little to no galena.

337.3-340.2 Sparce finely disseminated sph

340.2'-341.5 Gn rich zone; as veinlets ≈ 20% Gn, <5% sph.

383.4-390'

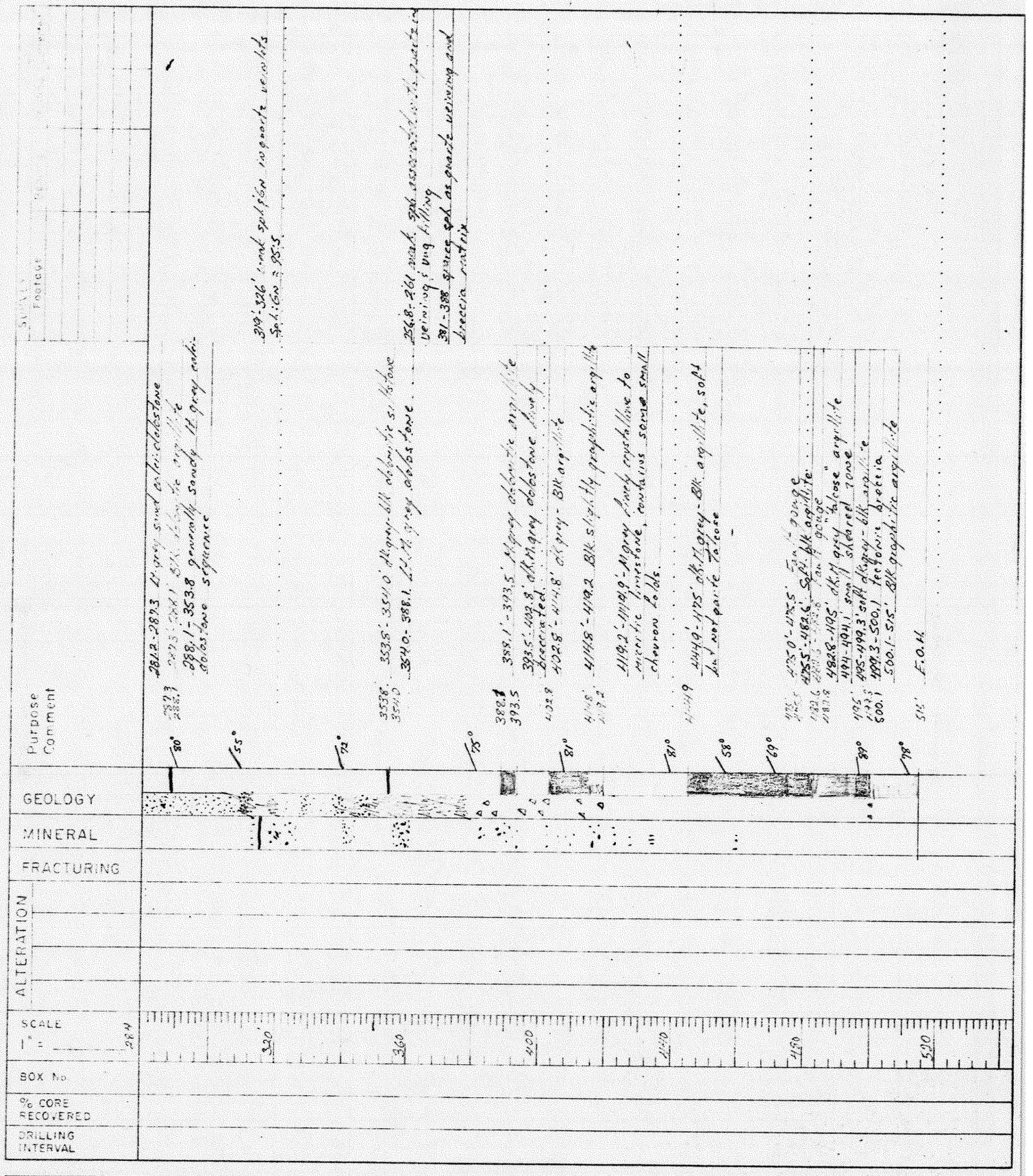


Length 515'
Bearing 000°
Dip 51.5°
Lat 41308
Dep 48504
Elev 4005
O B Thickness 26'
B R Thickness

Contractor D.W. Coates (L38)
Core BQ
Casing BQ 30' Pulled
Logged by W.E.K
Location (Clapper Zone) West Zone
Started Early
Finished
Started
Finished 5:30 Pm

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C-77-10
Project Craig
Claim



Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by WEK Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No. C77-90

Project Craig

Claim _____

SURVEY: Uncorrected Down		ANGLE	
Footage	Bearing	Reading	Corrected
Collar	-	-	-
200'		-54°	-53°
450'		-53°	-52°
550'		-52°	-51°

Purpose
Comment 1"=40' Composite of detailed 1"=10' Log.

0-87' Overburden & Casing

At base of overburden 3 small float pieces H.G. Graphitic Argillite

87-142' Talc Argillite

142-161' Transitional Talc Argillite-Grey Argillite Crumpled Bed's

161-190' Grey Argillite & Limestone lenses

190-193.5' Dolomite with bedded Grey Argillite

193.5-281' Laminated Grey Argillite (Talcy)

F.G. fragmental appearance
Dolomitic frags. + argillite

GEOLOGY

MINERAL

FRACTURING

ALTERATION
- Quartz & Silicification
- Carbonate Veining
- Faults

SCALE 1" = 40'

0 40 80 120 160 200 240 264'

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length 557
Bearing 023°
Dip -54°
Lat. 41163
Dep. 49677
Elev. 4076
O.B. Thickness 70'
B.R. Thickness

Contractor Dul Coates (L38)
Core BQ Stored Tara Lake
Casing 87' Pulled
Logged by PAL Date July '77
Location West Zone

Started 12 July
Started
Finished
Finished 15 June 12 Am

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C77-11
Project CRAIG
Claim

Page 1 of 3'

MCINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Length 557' Contractor
Bearing Core Stored
Dip Casing
Lat. Logged by PAL Date
Dep. Location
Elev.
O.B. Thickness Started Finished
B.R. Thickness Started Finished

Hole No. C77-11
Project CRAIG
Claim

Page 2' of 3'

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

Purpose
Comment

DRILLING INTERVAL | % CORE RECOVERED | BOX No. | SCALE 1" = 40' | ALTERATION: Faults; Carbonate Veining; Quartz + Silicification | FRACTURING | MINERAL | GEOLOGY

264'
280'
281'
285'
320'
345'
359'
360'
368'
400'
416'
434.5'
440'
457'
461.5'
480'
490'
495'
520'
521.5'
528'

281-285' Grey Black Argillite (weakly Graphitic)
285-345' Laminated Grey Black Argillite with Limestone laminae

296-320' Major Core Loss. Some Gouge left, Probable Major Fault

345-359' Black Graphitic Argillite
354-368' Laminated Dolomitic Argillite

368-416' Sparry Dolomite
· 2 veinlets 1/8" to 1/2" Sphalerite veins

(45?) 416-434.5' Mixed Bedded Dolomite and Graphitic Argillite

434.5-444' Massive to Crackle Brecciated Dolomite with minor graphite Beds

444-457' Sandy Dolomite with Minor graphite beds.

457-461.5' Black Graphitic Argillite + Minor Dolomite

461.5-480' Dolomite w. Graphite Beds
471.0-473.5' Major Fault

480-490' Black Graphitic Argillite With sandy Graphite beds (+ pyrite)

490-495' Grey Argillite + Limestone

495-521.5 Grey Argillite

521.5-524.0 Clean White Quartzite

Mineralization
422.0-422.6' Weak Sp, gn
423.0-423.6 " " "
432.0-435.0 Moderate Sp, gn
435.0-444.0 Very Strong Sph/gn
(Sph/gn 8-10 to 1)

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose
Comment

529 – 542' Talc Argillite

542 – 557 Grey Argillite (talcy)

557' END OF HOLE

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = 40'

528 542 560 600

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by PAL Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No. C77-11

Project CRAIG

Claim _____

Page 3' of 3'

Property	557
Hole No.	3330
Co-ords	4150
Local Grid	32515
Dep.	74481
Elev.	2619
Co-ords	381
Bearing	

D.W. Coates — BBSI

BQ — TRW Wireline

BQ 57' (pulled)

Core at Strong Place Mill as 1972

Started 12 July

Finished 15 July 10pm

McINTYRE MINES LIMITED

Hole No. C-72-12

Property Craig

Claim Trat

Sheet 1 of 2

SURVEY: Sperry Sun

Footage	Bearing	Dip
Collar	359°	45°
100'	55	46°
197'		44½°
307'	55	44°
557'	55	43°

Purpose / Comment	GEOLOGY	MINERAL / FRACTURE	ALTERATION	Box	% Rec.	Drill Interval	Scale 1" = 40'
0-51' casing, NO CORE							
51-68 soft "talcose" argillite M. grey with a greenish hue	58°						
68-85.9 M-dk grey soft argillite, grading from talcose at top to siliceous/pyritic at base.	54°						
85.9-91.5' LT. M grey M crystalline dolostone	64°						
91.5-94.0' fault zone shattered/sheared core balls.							
94.0-180.1' M. grey coarsely brecciated dolostone, 5% recirculated below 122', stylolitic							
Realgar mineralization 82.4-178.2'							
180.1-242.7' dk.M-dk grey, F-M crystalline dolostone brecciation more localized than previous unit.							
242.7-254.3 LT-M grey massive calcic dolostone minor brecciation							
254.3-271.5 brecciated stratiform dolostone fragm.	252°						
271.5-290.5' brecciated LT-LT.M grey M. crystalline massive dolostone							
290.5-308.5' brecciated stratiform dolostone frags. M-dk.M. grey.							

105.5-111.8' very lt brn, sparse. "Mississippi valley" type sph. 1-4 @ .05' M.brn sph band

118.5-118.9 veinlets containing fine sph & galena largest is 1cm wide

118.9-235.0' pale brn, sph. & M brn sph. weak but evenly distributed throughout. Best 5' section may run 1% sph. con. very sporatic throughout.

216-224. weak to moderate recrystallization

245' sph & Gn is stylolite bounded veins 246' several mm galena crystals

256-282. sporatic sph & Gn veining sph & Gn 1-2%

309.6-310.7 sph & Gn as replacement along bedding in breccia fragments.

305'

MCINTYRE MINES LIMITED

Hole No. CP-12
Project —
Claim —
Page 1 of 2

Contractor —
Core —
Casing —
Logged by MSK / PDL Date —
Checked by —
Started —
Finished —
Started —
Finished —

ALTERATION | MINERA. | FRACT. | GEOLOGY

Purpose
Comment

SURVEY
Footage | Reading

308'

308.5 – 332.7' Lt. grey massive thinly bedded dolostone

320'

332.7 332.7 – 336.6' Arsenopyrite bearing section with 20% 1" – 2" quartz veins at 30° to core axis. Sphalerite, galena, pyrite & arsenopyrite in quartz veins.

336.6 – 359.8' Interbedded lt. – dk. grey siltstone and argillite. Mylonite zone with 1" wide gouge at 30° to 40° at 340'

359.8 – 386.9 Lt. grey massive dolostone sugary recrystallized some secondary cross cutting veins.

360'

375.9 386.9 – 388.8 Fine grained silicified dolostone with pyrite veinlets.

388.8 – 1121.9' Lt. grey to dk. grey dolostone several

1121.9 zones of siltstone

1125.3 1125.3 – 1138' Lt. grey to dk. grey dolostone with thin beds of siltstone and argillite (70 – 80°)

1138 1138 – 1138.4' Lt. grey dolostone with dk. grey argillite partings

1138.4 – 1184.5' Stromatolitic siltstone & lt. grey dolostone

1184.5 – 1187.5' Massive sugary dolomite

1187.5

500'

500.5 500.5 – 510.6' Graphitic argillite with bands of sandstone grit, dolomitic @ 503 – 505

510.6 510' – 525.5' – mixed banding sediments – graphitic argillite pebbles dolomite, quartzite & dolostone.

525.5 525.5 – 541.4' Grey argillite with minor silty bands.

540'

541.4 – 542.0' Dark grey siltstone

350.0 – 353.55' Sphalerite in a light grey siliceous material

353.55 – 386.6 Five sphalerite veins with floating in a coarse grained white sparry calcite.

387 – 388 Sphalerite as crosscutting veins @ 30° combined

350.2 – 351.5' Brecciated section with small breccia fragments in matrix

Vein veins at 30°

351 – 388 Sphalerite veins, irregular distribution & thickness.

386.9 – 388.2 Sphalerite 10% combined

400.2 – 401.9' Sphalerite combined 10% 1:1

Sphalerite in irregular veins at

400.5 – 401; 404.9 – 405.2; – 5.5 –

463.5 cross cutting sph. vein

488.5 – 489 small cross cutting sph. veins.

SURVEY: Footage	Bearing	Setting

Purpose / Comment

5412: 553' Upper graphitic zone.
553': 553-557' Tr. sulphides, graphitic
557': bands.
559: End of hole

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = 40' Surf.

560

BOX No.

% CORE RECOVERED

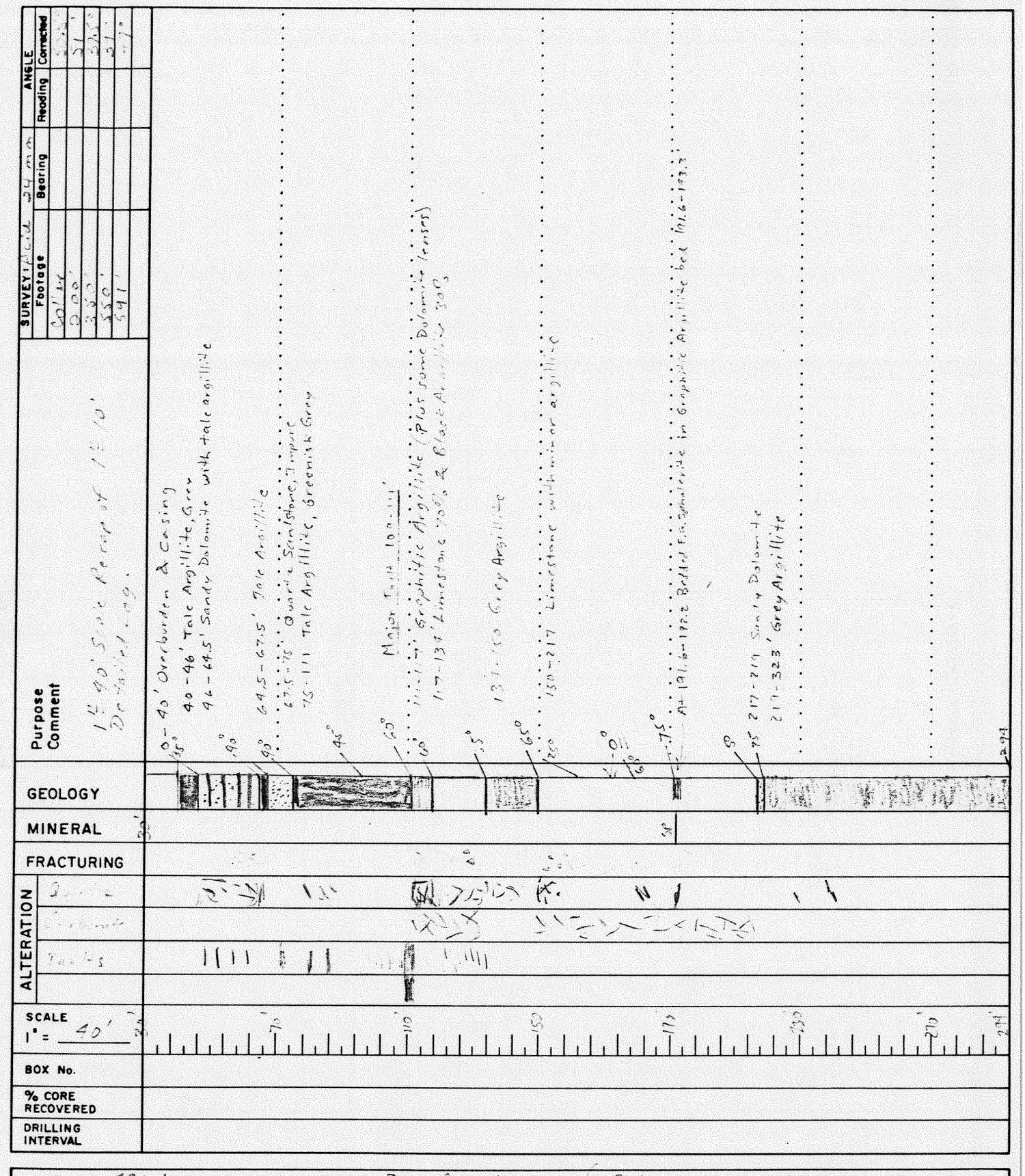
DRILLING INTERVAL

Length
Hearing
Dip
Collar
Grid
Elev.
Core Thickness
Bed Thickness

Contractor
Core
Stored
Casing
Logged by, WSK/PAL Date
Location Trent Zone
Started
Finished
Started
Finished

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C-77-12
Project Craig
Claim



Length 591'
Bearing 000°
Dip -50°
Lat. 4120
Dep. 5010
Elev. 4058
O.B. Thickness 31'
B.R. Thickness

Contractor DW Contdg. (LSE)
Core BQ
Casing 50' (pulled)
Logged by PAL
Location West Zone
Started 16 July
Started
Finished
Finished 18 July 1 AM

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C7-13
Project CRAIG
Claim
Page 1 of 3

SURVEY: Footage	Bearing	ANGLE: Reading	Corrected

Purpose
Comment

323-332.5' Mixed Graphitic Argillite and Dolomite, Trace of Sphalerite

332.5-390.5' Mixed Graphitic Argillite (60%) + Limestone (40%)

390.5-397.5' Grey Argillite Plus Dolomite Layers

397.5-429.0' Grey Dolomite, Minor Sulphides, Mostly Brecciated

429.0-514.5' Oolitic & Minor Non-Oolitic Dolomite

514.5-545.5' Dolomite Solution Breccia
Minor Variations Trace Amounts of Sphalerite (?) Sulphides

545.8-558.5' Graphitic Argillite
Major Fault 548-551.5'

70 — 323 — 70 — 55° Contorted Beds — 70 — 58° — 45° — 10°

GEOLOGY
MINERAL
FRACTURING
ALTERATION
Quartz
Carbonate
Fault

SCALE 1" = 40'

BOX No.
% CORE RECOVERED
DRILLING INTERVAL

Length _____ Contractor _____
Bearing _____ Core _____ Stored _____
Dip _____ Casing _____
Lat. _____ Logged by PAL Date _____
Dep. _____ Location _____
Elev. _____
O.B. Thickness _____ Started _____ Finished _____
B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C77-13
Project CRAIG
Claim _____
Page 2 of 3

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose
Comment

75°

558.5'-565.5' Grey Argillite
565.5-571' Pale Argillite, Greenish

70°

571' END OF HOLE

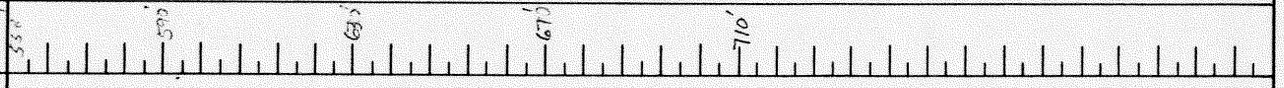
GEOLOGY

MINERAL

FRACTURING

ALTERATION
- Quartz
- Carbonate
- Faults

SCALE 1" = 40'



BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by RAL Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

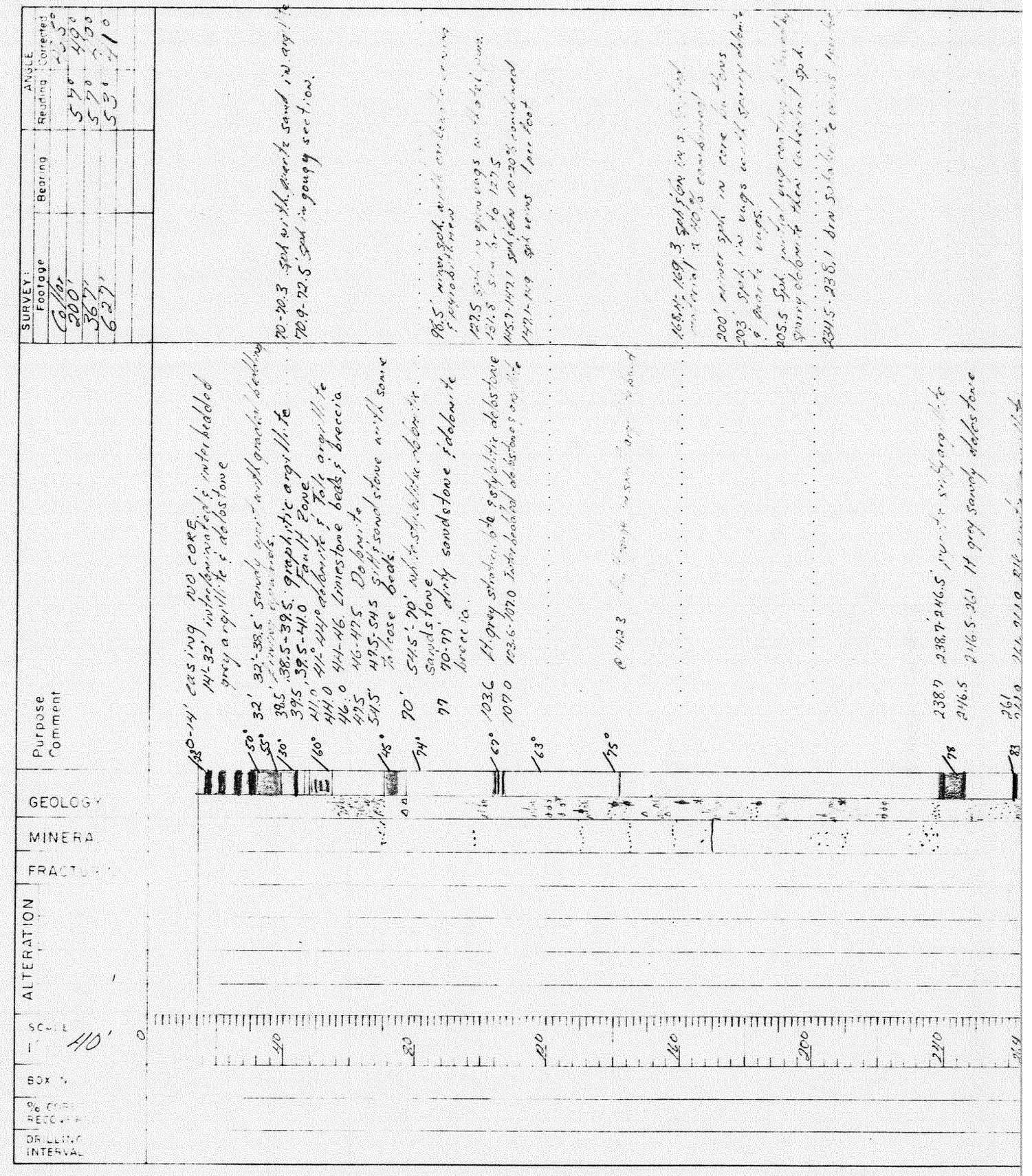
McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C77-13

Project Craig

Claim _____

Page 3 of 3



Length 637'
Bearing 354°
Dip -46.5°
Lat 32954
Dep -74499
Elev 2578
O B Thickness 11'
B R Thickness

Contractor D.W. Cates BBSI
Core BQ Stored TIRA LAKE
Casing 14' BQ (left in hole)
Logged By W.E.K. Date Sept 25 1977
Location Front Zone

Started 17 July
Started
Finished
Finished July 18 1977 11AM

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No E-77-14
Project Craig
Claim

Page 1 of 3

Length ____ Contractor ____

Bearing ____ Core ____ Stored ____

Dip ____ Casing ____

Lat ____ Logged by WEK Date ____

Dep ____ Location ____

Elev ____

O B Thickness ____ Started ____ Finished ____

B R Thickness ____ Started ____ Finished ____

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No E-77-14

Project Craig

Claim ____

SCALE 1" = 40'

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

ALTERATION | FRACTURING | MINERAL | GEOLOGY

Purpose / Comment	SURVEY: Footage	SURVEY: Bearing	ANGLE: Dip / Horizontal
261.9-373 LT-M grey stratiform dolostone			
373 373-392 M. grey M. crystalline massive dolostone			
392' M grey stratiform dolostone.			
396 396-407 LT. grey massive dolostone			
407 407-513 M. grey stratiform dolostone			
426-422.9 dk grey brecciated zone			
513 513'-534' M. grey massive dolostone			

261.9-275.1 early spk cut by spk§Gn veins with qtz.

280.4-280.7 disseminated gn§spk in bedded dolostone

283.1-283.7 spk along veinlets

290.8 1cm spk. crystals in large dolomite§qtz vein

295-298.4 rare spk along dolomite infilling.

306.9-326.1 minor spk§dolomite as veining with dolomite§some earlier snow on roof spk.

326.2-334.5 spk§Gn as breccia matrix spk:Gn = 20:1

341.8-348 scattered spk§Gn crystals in stratiform dolostone

353.5'-4' diss. spk§Gn along bedding in stratiform dolostone.

363.7-364.6 Gn§spk in rock. 2 bxp veins ? in Zebra.

368.2-370.4 Spk§Gn as veins spk along schist @ 370.0'

392-396.1 moderate spk§Gn along bedding planes spk:Gn = 5:1

401.5 several < 1 mm gn crystals in rock

404.3-406.2 spk§Gn growing along bedding

413.1-415.4 spk§Gn along bedding§fract

423.8-429.5 minor spk.

433.5-434.8 spk in qtz veins

434 Gn§spk along bedding.

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

Steps a few m. spot. crystal in a gtz vein.

Purpose Comment

534'. 534'-637' Lt. M. grey siltstone/slate Aolestone

78° 175° 82° 83°

637' EOH

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = 40' SDH

BOX No

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat _____ Logged by WEK Date _____

Dep _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

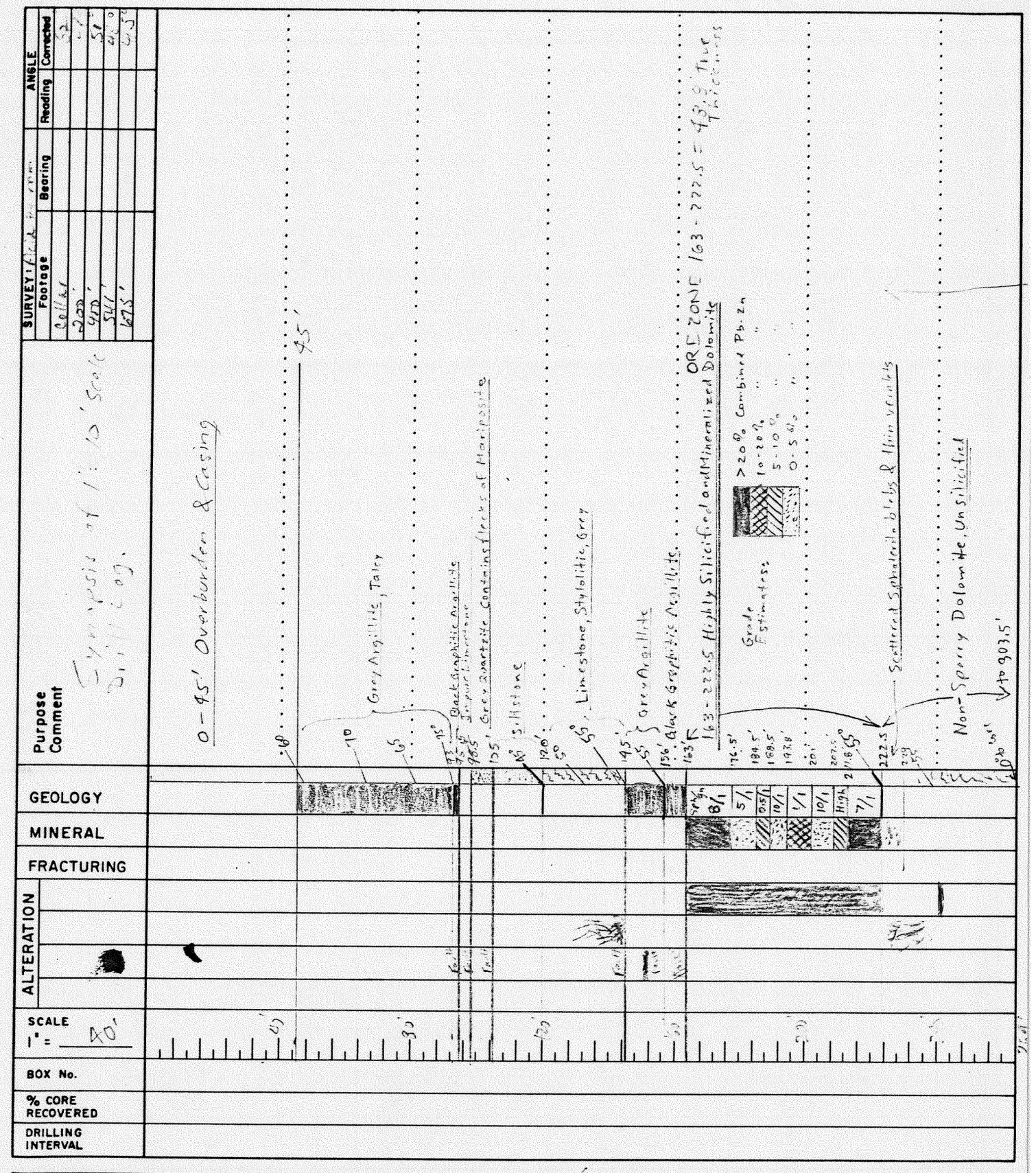
EXPLORATION DEPARTMENT

Hole No C-77-14

Project Craig.

Claim _____

Page 3 of 3



Length 675'
Bearing 000°
Dip -52°
Lat. 41076
Dep. 50895
Elev. 4608
O.B. Thickness 35'
B.R. Thickness

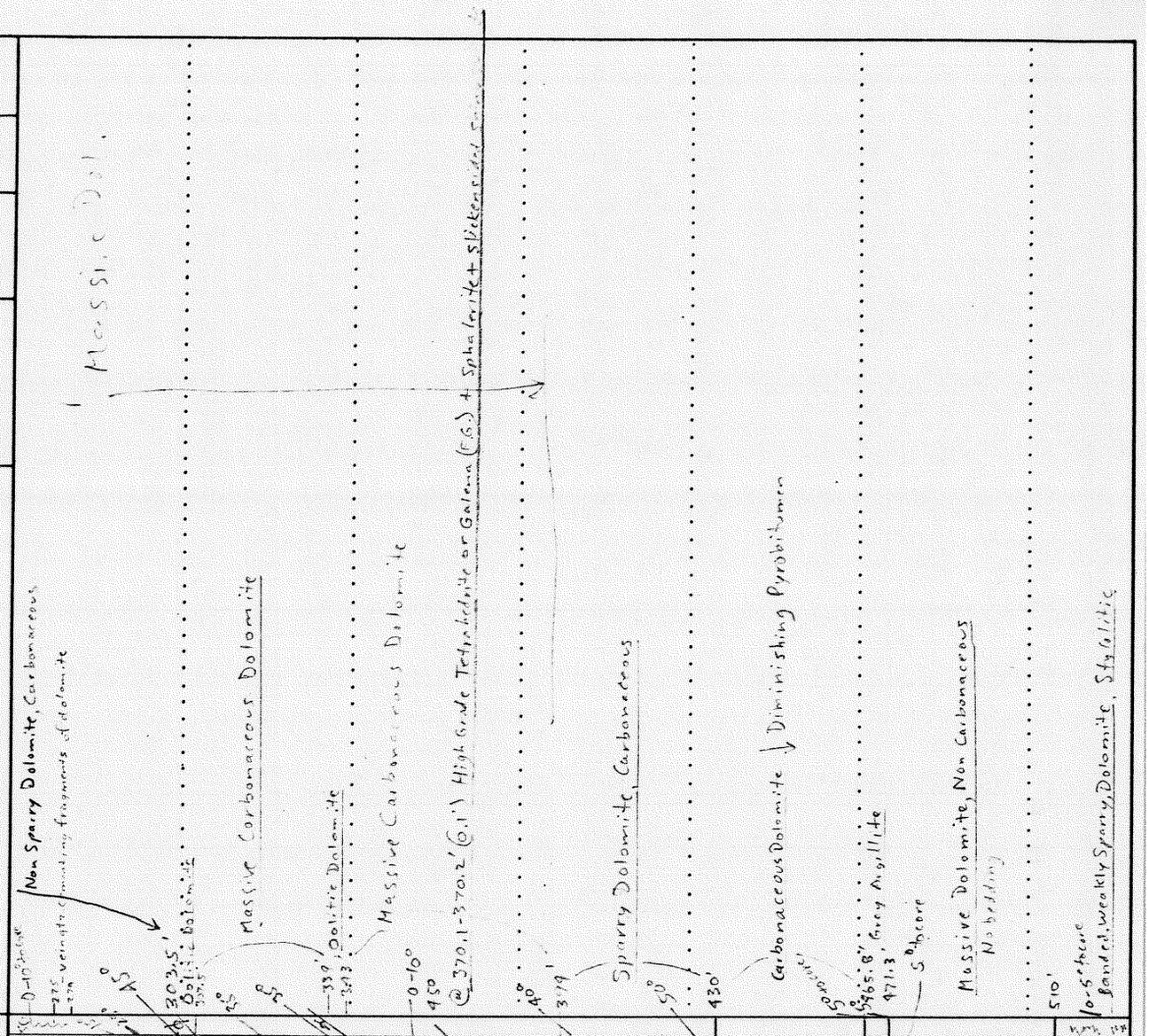
Contractor Duncastes (L38)
Core BQ Stored Tara Lake
Casing 45' pulled
Logged by P.A. Linton Date July 23, 1977
Location West Zone
Started 19 July
Finished
Started
Finished July 21, 1977 12Am

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT
Hole No. C77-15
Project CRAIG
Claim
Page 1 of 3

SURVEY			ANGLE	
Footage	Bearing	Reading	Corrected	

Purpose
Comment

Synopsis of 1"=10' Scale Drill Log.



GEOLOGY	
MINERAL	
FRACTURING	
ALTERATION — Quartz & Silicification	
ALTERATION — Carbonate	
ALTERATION — Faults	
SCALE 1" = 40'	264' 280' 320' 360' 400' 440' 480' 520' 528'
BOX No.	
% CORE RECOVERED	
DRILLING INTERVAL	

Length 675'
Bearing
Dip
Lat.
Dep.
Elev.
O.B. Thickness — Started — Finished
B.R. Thickness — Started — Finished

Contractor
Core — Stored
Casing
Logged by PAL — Date
Location

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C77-15
Project CRAIG
Claim

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by PAL Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

MCINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C77-15

Project CRAIG

Claim _____

Page 2' of 3'

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 40' 528	ALTERATION	FRACTURING	MINERAL	GEOLOGY
			560'	Fault			532' Granular Dolomite
							540' Layered Dolomite, Parallel to core
							551' Massive Dolomite
							granular Dol: Same as 532-540'; Prob same bed.
							566' Grey Argillite
				Fault			573' Grey Argillite + Dolomite
							579.5' Grey Argillite
			600'	Fault			604' Limestone
				Fault			619.8' Grey Argillite + Dolomite
					MXS		645.1' Graphitic Argillite Traces Dol.
			640'				679.5' Graphitic Arg. + Limestone
			680'				675.0

Synopsis of 1" = 10' Scale Drill Log.

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

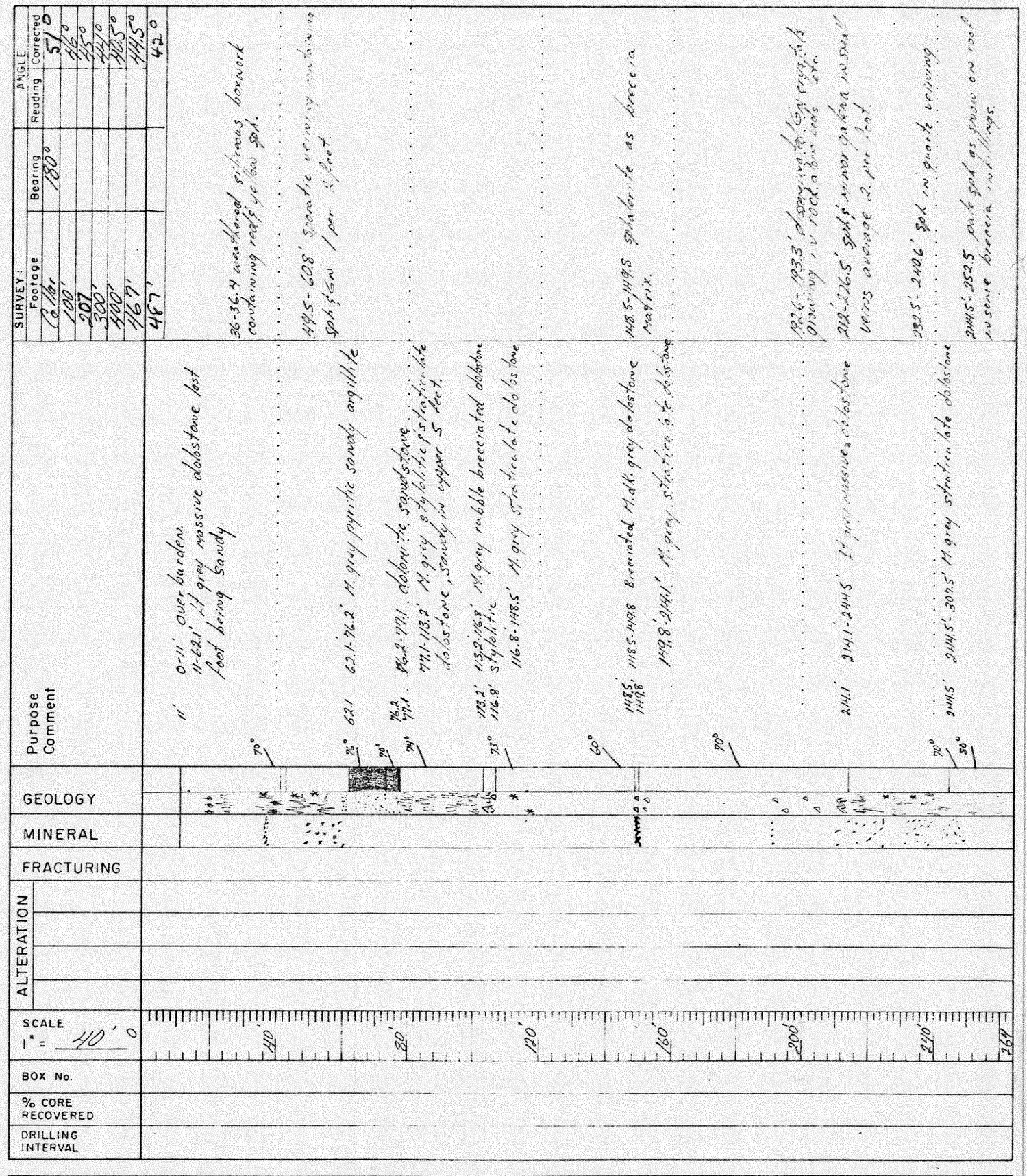
At 529.5-530.5 & 550-551' Narrow zone of Qtz veining in stylolitic bedding plane. Probable same bed parallel to core.

675' END OF HOLE

NOTE: Upper part of Dolomite is at 55° to Core. (163-240')
240-350' is bending Structure with core angles 0-45°

350-365' 0-10°
365-beyond 425' 40° A.C.
425-460 No bedding
460-566 0-5° to core
Fault
566-675' 45-65° to core.

Sharp break in bedding is a fault.



Length 467'
Bearing 180°
Dip 51°
Lat 33050
Dep 73933
Elev 2577
O B. Thickness 9'
B.R Thickness

Contractor D.W. Coates BBSI
Core BQ
Casing 10' BQ Pulled
Logged by W.E.K. Date July 27 1977
Location Trend Zone

Started 19 July
Started
Finished
Finished 20 July 11pm

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C-77-16
Project Craig
Claim

Page 1 of 2

SURVEY: Footage	Bearing	AXIAL Reading	Corrected

2741', 2778.4' pale snow on road type spx.

282.3'-292.7' Sporadic rare pale spx. as pseudo - snow on road.

Purpose
Comment

307.5'

307.5'-397' Light-med. grey, dolostone massive, generally fine grained, rare pyrite, local dark laminae.

397'

397'-407' M. grey siltstone/fine dolostone

407'

407'-428.9' M. grey dolostone extremely brecciated, matrix supported, angular fragments.

428.9'

428.9'-435.5' M. grey siltstone/fine dolostone

435.5'

435.5' Zone minor or pinpoint along fractures

487'

GEOLOGY	
MINERAL	
FRACTURING	
ALTERATION	
SCALE 1" = 40'	280' 320' 360' 400' 440' 480' 520'
BOX No.	
% CORE RECOVERED	
DRILLING INTERVAL	

Length _____ Contractor _____

Bearing _____ Core _____ Used _____

Dip _____ Casing _____

Lat _____ Logged by WEK Date _____

Dep. _____ Location _____

Elev _____

O B. Thickness _____ Started _____ Finished _____

B.R Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

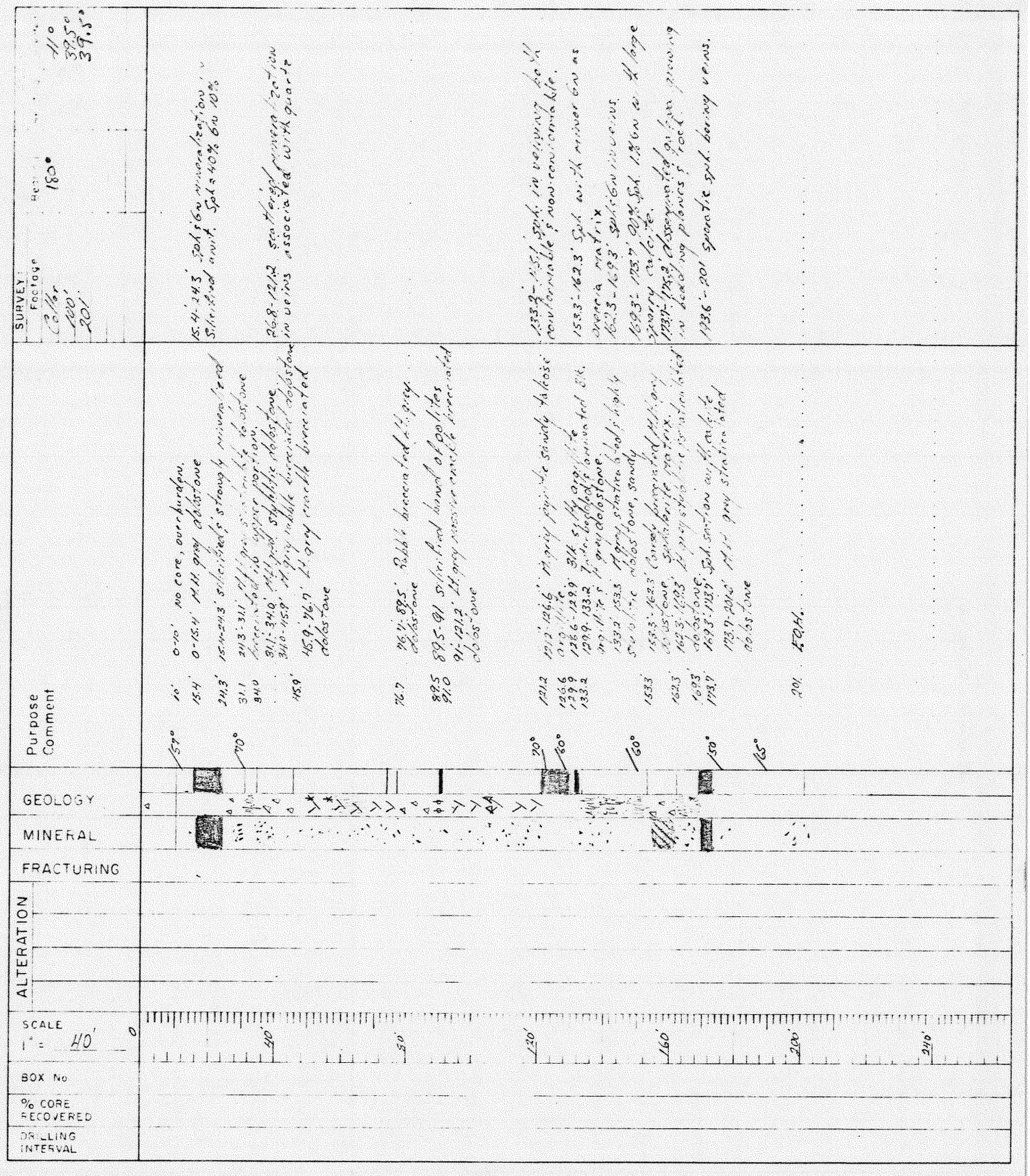
EXPLORATION DEPARTMENT

Hole No C-77-16

Project Craig

Claim _____

Page 2 of 2

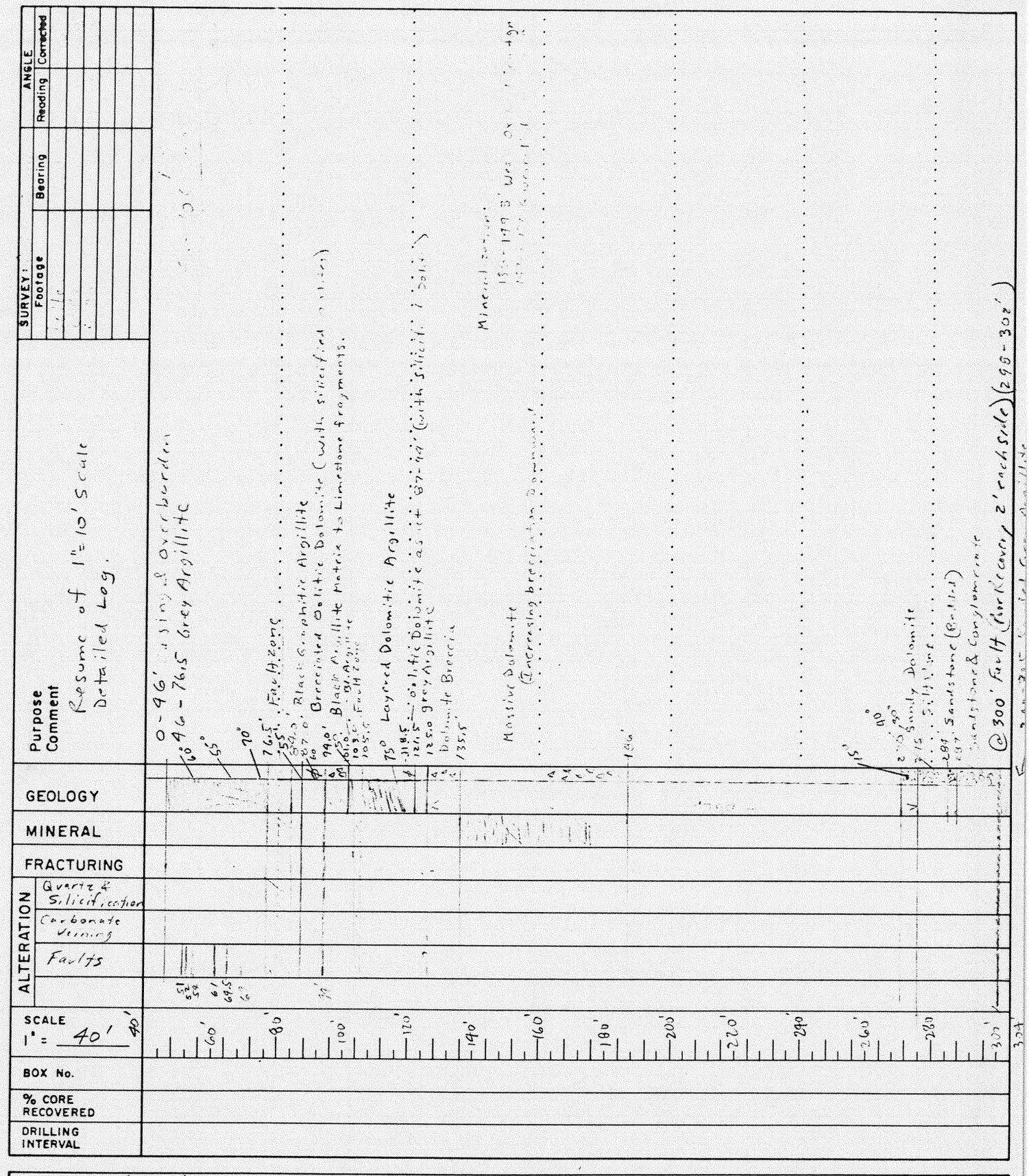


Length 201'
Bearing 180°
Dip 40°
Lat 32817
Dep 74499
Elev 2589
O.B. Thickness 8'
B.R. Thickness

Contractor D.W. Coates BBSI
Core NQ
Casing NQ 10' left in hole
Logged by W.E.K. Date July 25 1976
Location TRENT Zone
Started 22 July
Finished
Started
Finished 22 July 1977 - 11pm.

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C-77-17
Project Craig
Claim
Page 1 of 1



Length 427'
Bearing
Dip
Lat.
Dep.
Elev.
O.B. Thickness 22'
B.R. Thickness

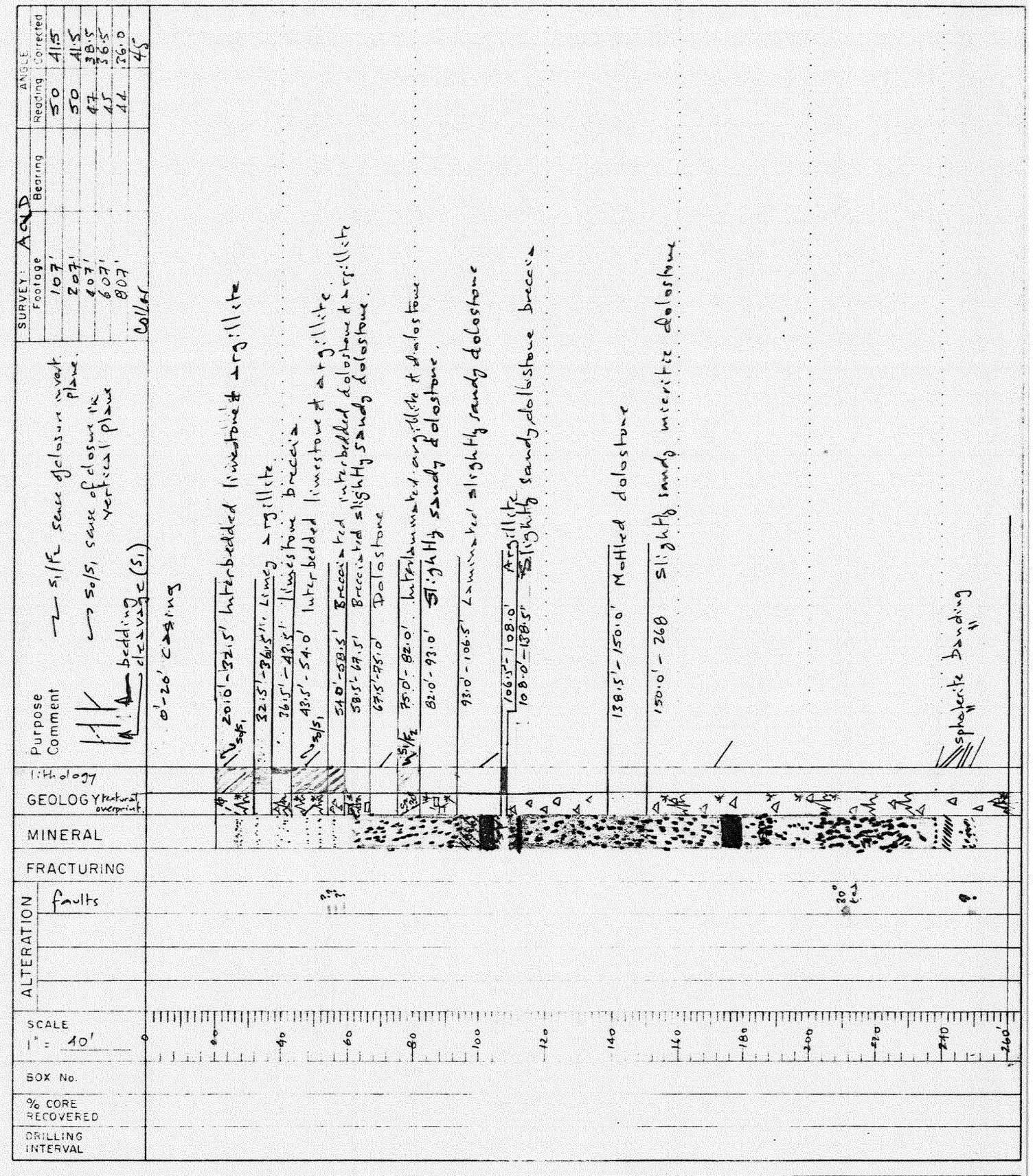
Contractor D.W. Coates
Core BQ
Casing
Logged by P.A. Lindberg Date July 29, 1977
Location West Zone

Started 22 July
Started
Finished
Finished 25 July 3pm.

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C77-18
Project CRAIG
Claim

Page 1 of 2'



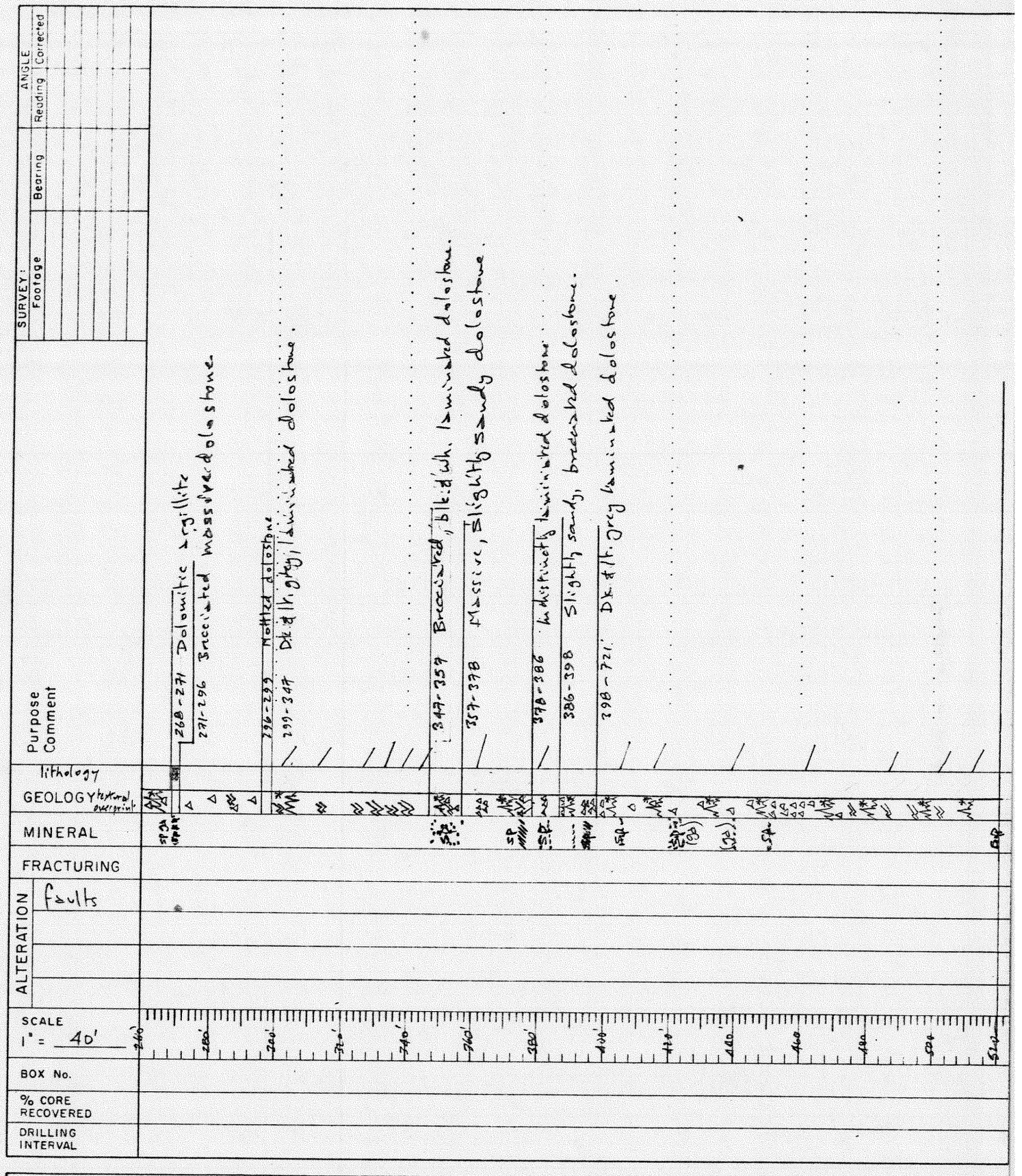
Length 847'
Bearing 225°
Dip -45°
Lat 38983
Dep. 59605
Elev 4894
O.B. Thickness 14'
B.R Thickness

Contractor Coates Drilling — (BBS-1)
Core BQ
Casing Removed from hole, 20' BQ.
Logged by A.M.S. Clark Date 25th July 1977
Location Discovery Zone (West Zone)
Started 24th July 77 Finished 24th July 77
Started 24th July 77 Finished 27 July 77 9AM

Stored Tara Lake Camp

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

File No C-77-19
Project Craig
Claim



Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by A.M.S.Clark Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

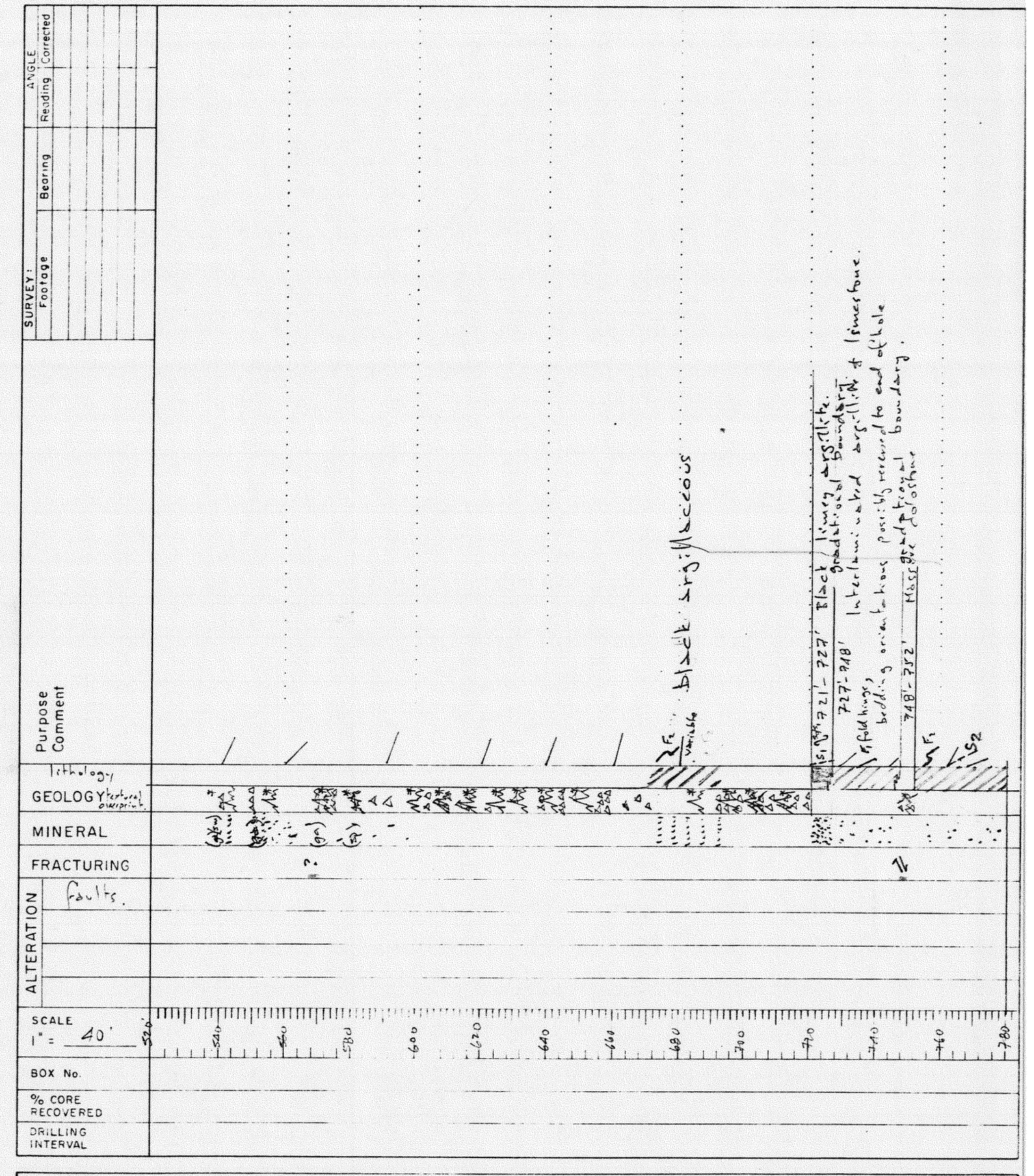
McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No C.77-19

Project Craig

Claim _____



Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat _____ Logged by A.M.S Clark Date _____

Dep _____ Location _____

Elev _____

O B Thickness _____ Started _____ Finished _____

B R Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

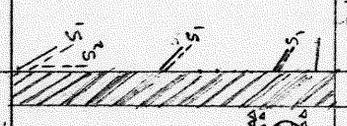
Hole No C-72-19

Project Craig

Claim _____

SURVEY: Footage | Bearing | ANGLE Reading | ANGLE Corrected

Purpose
Comment



Lithology

GEOLOGY (textural overprints)

MINERAL

FRACTURING

ALTERATION faults

SCALE 1" = 40'

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by A.M.S.Clark Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

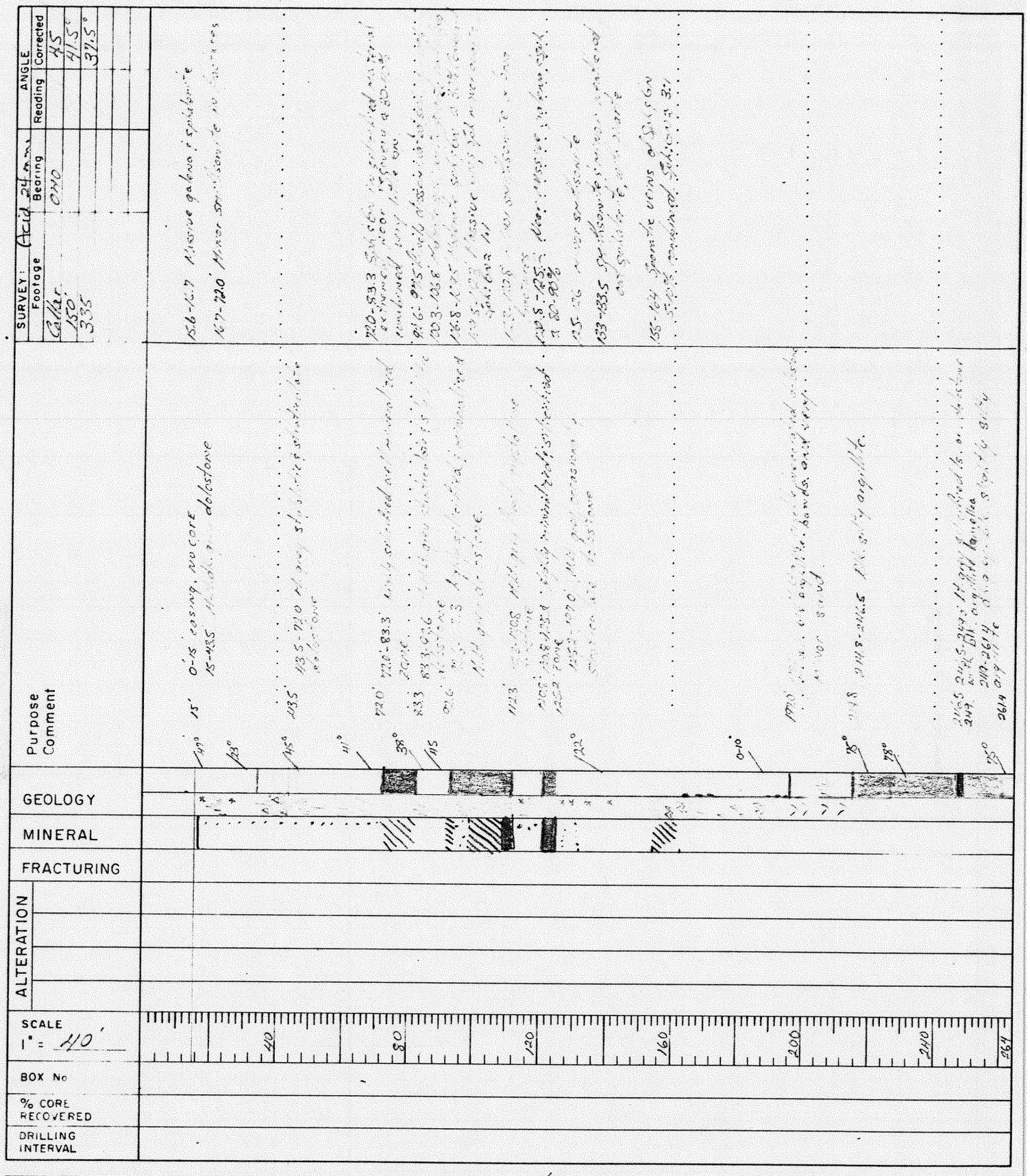
McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C77-19

Project Craig

Claim _____

Page 4 of 4



Length 335'
Bearing 40°
Dip 45°
Lat. 41457
Dep. 50515
Elev 4511
O.B. Thickness 11'
B.R. Thickness

Contractor D.W. Coates (L38)
Core HQ Stored Vancouver
Casing NQ · 14' left in hole
Logged by W.E.K. Date Aug 8 1977
Location West Zone

Started 24 July
Started
Finished
Finished July 25 1977 11AM.

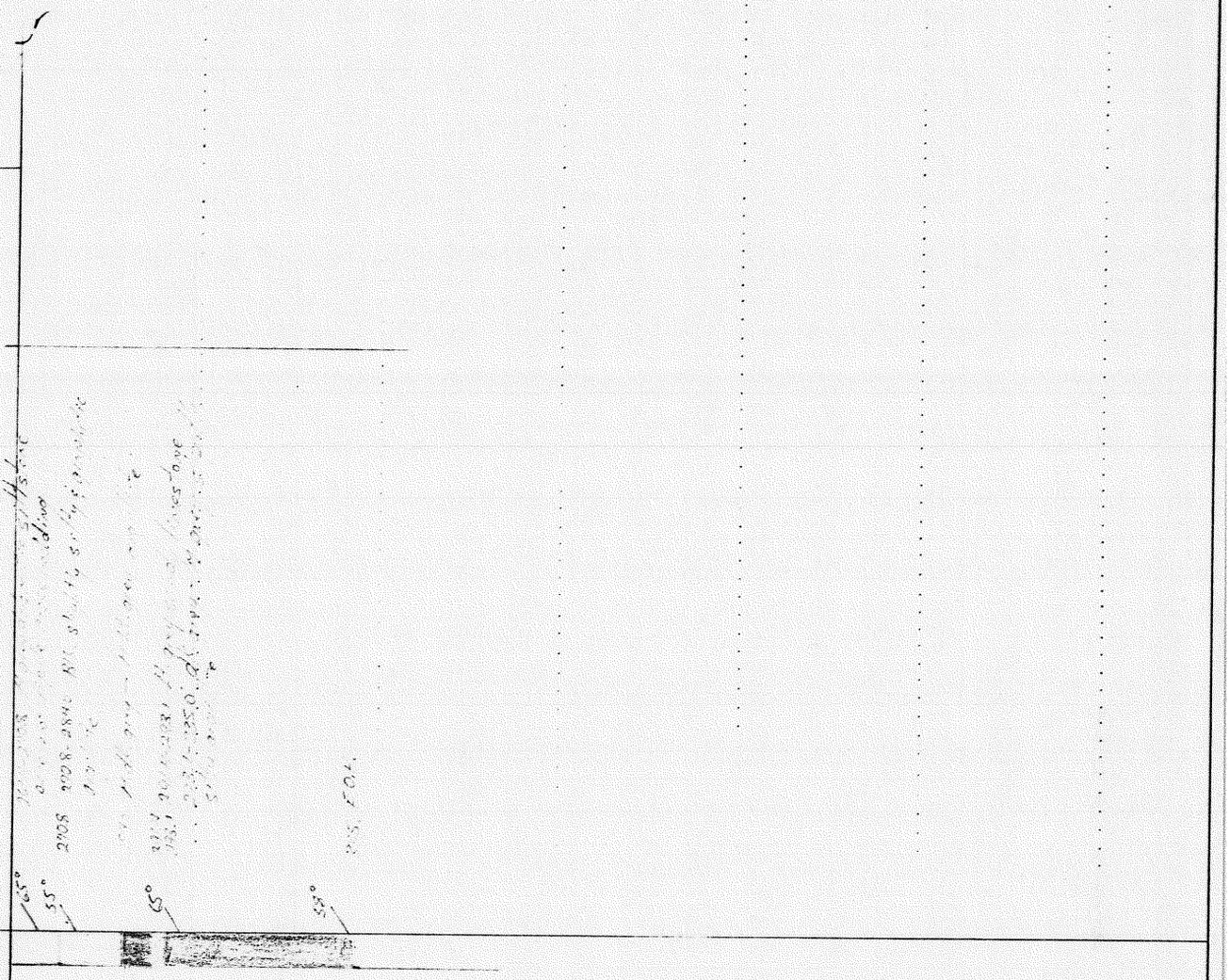
McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C-77-20
Project Craig
Claim CRAIG B SW

Page 1 of 2

SURVEY
Footage | Bearing | ANGLE Reading | Corrected

Purpose
Comment



GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE
1" = 5'

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat _____ Logged by WEK Date _____

Dep _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C77-20

Project Craig

Claim _____

Page 2 of 2

SURVEY: (C) Acid Test 24 Dec.		ANGLE	
Footage	Bearing	Reading	Corrected
Collar	000°		51°
200'		58	50°
400'		57	48.5°
500'		52	43.5°
600'		51	42.5°
875'		53	44.5°

Purpose
Comment

1177 - 1204.5 s/z green to grey/grey green tuffaceous material, pear blotte

1384' 138.7-139.2' Blk. argillite
1387 139.7-141.8' Light grey to dk. grey tuffaceous sandstone.
1391.9 141.8-144.8' Dk. grey to Blk. argillite

1448' 144.8-170.2' Chert, dk. grey, tuffaceous arg.
1702 170.2-172.9' dk. grey argillite
1729 172.9-181.0' light grey tuffaceous sandstone
1810 181.0-184.0' dk. grey, tuffaceous arg. argillite
1840 184.0-193.0' Greenish grey tuffaceous sandstone.
1930 193.0-255.0' dk. grey - Blk. argillite

2550 255.0-262.0' Fault Zone. Lt. greenish grey
2620 262.0-270.2' dk. grey to greenish grey tuffaceous arg. argillite
2702 270.2-278.5' Greenish grey tuffaceous sandstone
2785 278.5-306.0' dk. grey argillite

3060 306.0-307.1' Greenish grey massive tuffaceous sandstone
3071 307.1-308.5' dk. grey arg. argillite
3085 308.5-309.4' Greenish grey tuffaceous sandstone
3094 309.4-3840' dk. grey argillite

GEOLOGY
MINERAL
FRACTURING
ALTERATION
SCALE 1" = 100'
BOX No.
% CORE RECOVERED
DRILLING INTERVAL

Length 875'
Bearing 000'
Dip 51°
Lat. 11091.2
Dep. 3076
Elev 1154.2
O.B. Thickness 75'
B.R Thickness

Contractor D.W. Coates L38
Core NQ→451'; BQ→875' Stored TARA LAKE
Casing NQ 120' Pulled.
Logged by W.E.K. Date Aug 12, 1977
Location West Zone
Started 26 July
Started
Finished
Finished 30 July 2pm.

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C-77-21
Project Craig
Claim Craig 8 SW

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose
Comment

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = _____

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by WEK Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____

B.R. Thickness _____ Started _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

DDH No C-77-21

Claim Craig

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected	Purpose Comment
				656.8' a 45m galena wedge.
				1567' 656.8-2142.0' lt-med. grey dolostone
				2142.0-2550.0 lt grey dolomitic quartz sandstone.
				2550' Lt-med grey dolostone with quartz sandstone.
				2773.8. Very minor 4 pyrite, sphalerite. 2780.5-2784.4 minor amount of pyrite, sphalerite.
				8070' 8070-8151' light grey sandstone dolostone
				8151' 8151-8205' Lt grey dolomitic arenite.
				8205' 8205-8263' Lt grey dolomitic sandstone with pyrite. Occasional sphalerite veinlets.
				8263' 8263-8400' Mixed lt grey dolomitic arenite and dolostone.
				8400' 8400-8526' Mainly dolomitic sandstone with dk. sphalerite bands
				8526' 8526-8658' Blk. graphitic argillite
				8658' 8658-8750' dk. grey dolomitic arenite with minor graphitic argillite.
				8750' E.O.H.

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = 100'

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat _____ Logged by WEK Date _____

Dep. _____ Location _____

Elev _____

O B. Thickness _____ Started _____ Finished _____

B. B. Thickness _____ Started _____ Finished _____

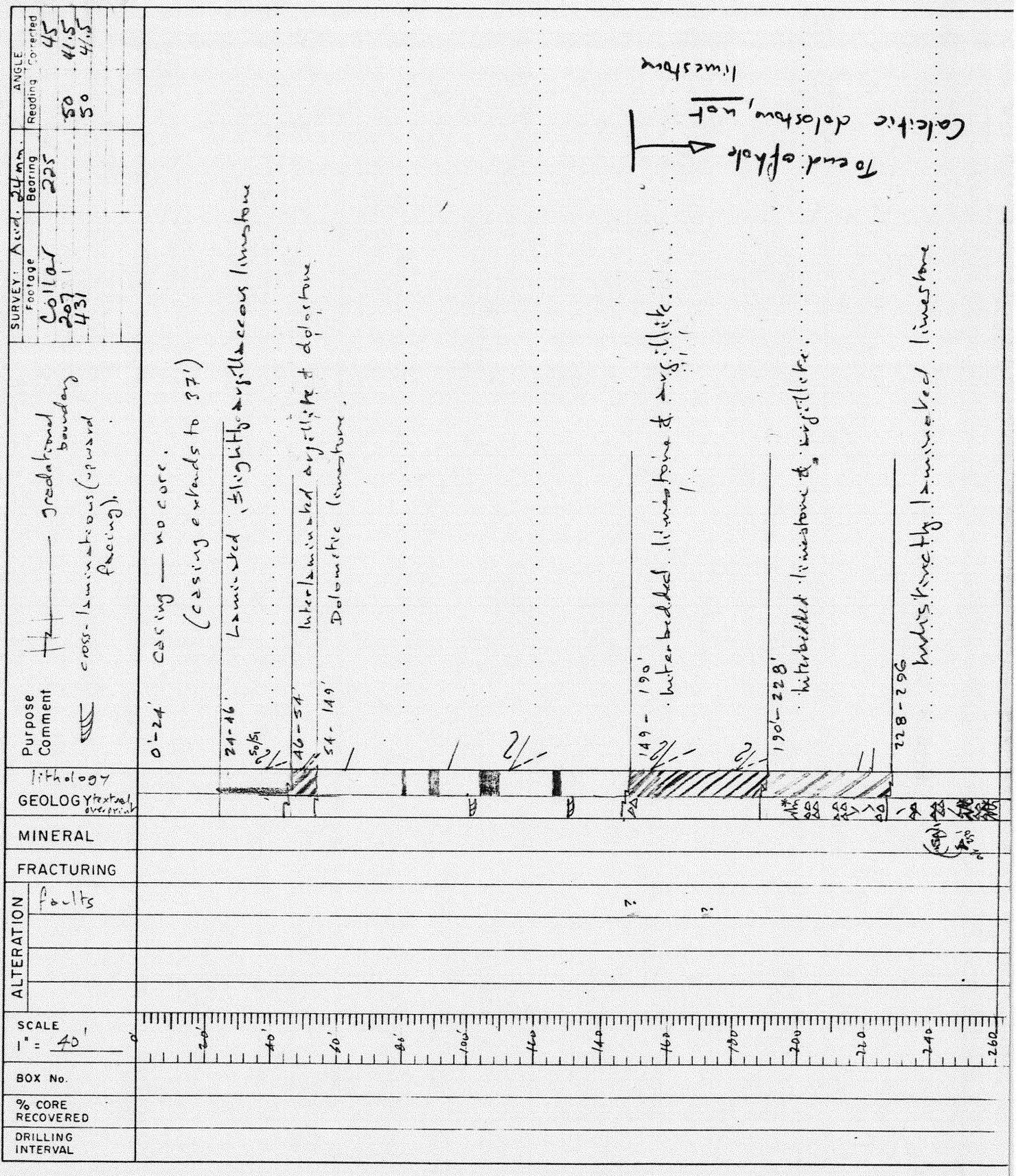
McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No C-77-21

Project Craig

Claim _____



Length 447'
Bearing 225°
Dip -45°
Lat 39055
Dep. 59681
Elev 4908
O.B. Thickness 18'
B.R Thickness

Contractor Coates Enterprises — (BBS-1)
Core BQ Stored Tara Lake Camp
Casing Left in hole BQ 36'
Logged by A.M.S. Clark Date 30th July 1977
Location Discovery Zone
Started 28 July 1977 Finished 28th July 1977
Started 28th July 1977 Finished 29 July 1977 8am

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C-77-22
Project Craig
Claim

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose
Comment

296'-308' Laminated Limestone
308'-354' Moderately Laminated Limestone
354'-371' Laminated Limestone
371'-387' Mottled Limestone
387'-392' Laminated Limestone
392'-406' Mottled Limestone
406'-447' Laminated Limestone
447' - END OF HOLE

Lithology GEOLOGY (Textural overprint)	
MINERAL	
FRACTURING	
ALTERATION	faults.
SCALE 1" = 40'	120 160 200 240 280 320 360 400 440 480 520
BOX No.	
% CORE RECOVERED	
DRILLING INTERVAL	

Length _____ Contractor _____
Bearing _____ Core _____ Stored _____
Dip _____ Casing _____
Lat. _____ Logged by A.M.S. Clark Date _____
Dep. _____ Location _____
Elev _____
O.B. Thickness _____ Started _____ Finished _____
B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C77-22
Project Craig
Claim _____

Length 443'
Bearing 225'
Dip -45°
Lat 38862
Dep 59752
Elev 4757
OB Thickness 11'
BR Thickness —

Contractor Coates Enterprises (BBS-1)
Core BQ
Casing Left in hole BQ 16'
Logged by ANSClark Date 31st Tuesday 4th Aug. 77
Location Discovery Zone
Started 30 July ; 2 Aug Finished
Started 3 Aug 5AM. Finished

MCINTYRE MINES LTD.

Page 1 of 2

SCALE 1" = 40'	BOX No.	% CORE RECOVERED	DRILLING INTERVAL	ALTERATION	MINERAL FRACTURING	GEOLOGY (lithology, structural description)
0				faults		
20						(sp)
40						
60						(brm)
80						
100						(sp) brm
120						
140						
160						
180						
200						
220						(sm)
240						
260						

Purpose
Comment

Test Acid 24 mm

Footage	Bearing	Angle Reading	Angle Corrected
Collar	225		45
200		55	46.5
281		55	46.5
437		57	49

0-16' casing — no core.

16'-36' Massive sandy dolostone

36'-48' Laminated dolostone

48'-82' Mottled dolostone.

82'-105' Black argillaceous limey dolostone breccia

105'-122' Massive sandy dolostone

122'-131' Laminated dolostone

131'-172' Interbedded massive dolostone & laminated dolostone

172'-179' Mottled dolostone.

179'-215' Interbedded massive dolostone & laminated dolostone

215'-218' Laminated dolostone

218'-248' Interbedded mottled dolostone & laminated dolostone

248'-443' Laminated dolostone

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose
Comment

273' - 283' Black argillite matrix dolostone breccia

283' - 336' Dolostone breccia

336' - 354' Laminated dolostone

354' - 364' Pyritic argillaceous dolostone

364' - 366' Laminated dolostone breccia

366' - 381' Dolostone breccia with argillite matrix of rubbly near top.

381' - 443' Laminated dolostone - breccia

443' END-OF-HOLE

GEOLOGY lithology textural overprint

MINERAL

FRACTURING

ALTERATION faults

SCALE 1" = 40'

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by A.M.S.Clark Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

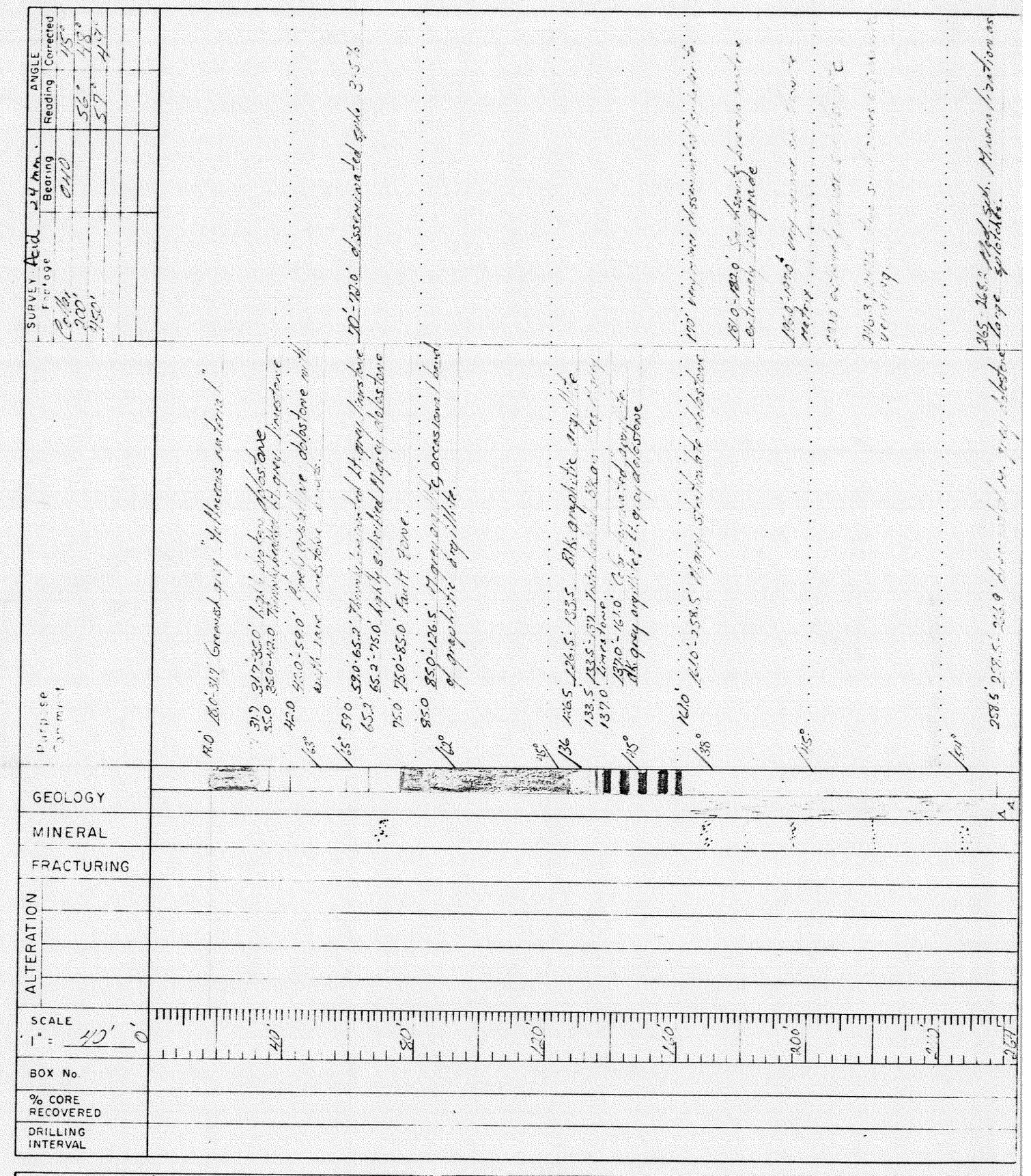
McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C77-23

Project Craig

Claim _____

Page 2 of 2



Length 495'
Bearing 043°
Dip -45°
Lat 41221
Dep 50706
Elev 4544
O.B. Thickness 14'
B.R. Thickness

Contractor D.W. Eastes - L38
Core NQ → 450; BQ → 495 ... TAKU LAKE
Casing 12' NQ in hole
Logged by L.E.K. Date Aug 2, 1977
Location West Zone

Started 31 July
Finished
Started
Finished 2 Aug 5pm

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C 77-21
Project Craig
Claim

Page 1 of 2

SURVEY

Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose
Comment

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = 40'

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by, WEK Date _____

Dep. _____ Location _____

Elev _____

O B. Thickness _____ Started _____ Finished _____

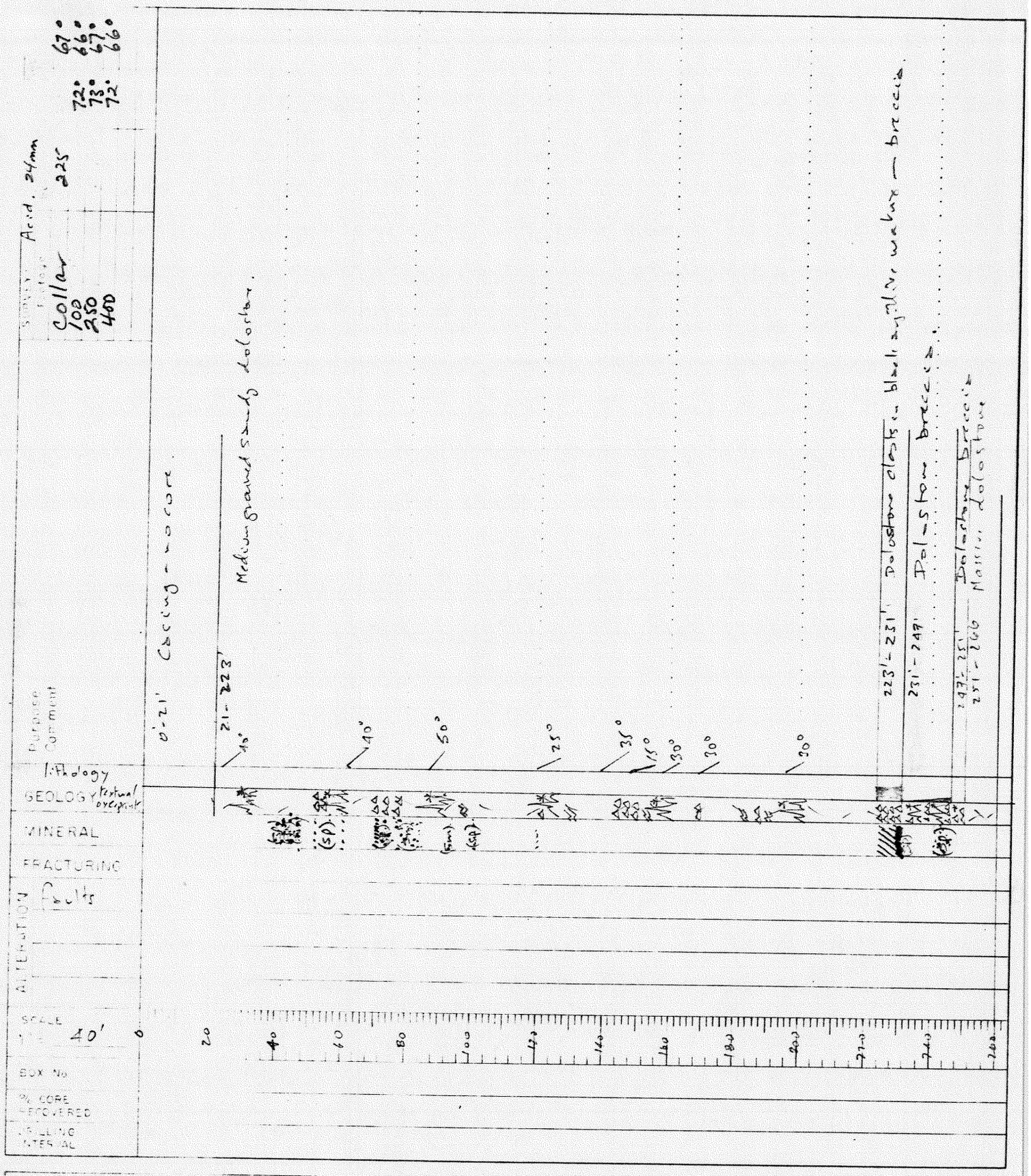
B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

C-777-24

Craig



498'
225°
-67°
38864
59753
4757
19'

Contractor Coates Enterprises (BES-1)
Core BQ Stored Tara Lake Camp
Casing Left in hole BQ 20'
Logged by A.M.S.Clark Date 1st-2nd Aug. 1977
Location Discovery Zone
Started 31 July & 4 Aug Finished
Started Finished 2 Aug. 7AM.

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT
Hole No C77-25
Project Craig
Claim
Page 1 of 2

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by A.M.S.C/clark Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R Thickness _____ Started _____ Finished _____

MACINTYRE

Hole No. C77-25

Project Craig

Page 2 of 2

SCALE 1" = 40'	ALTERATION	FRACTURING	MINERAL	GEOLOGY (Lithology, Structural, Textural)	Purpose / Comment	SURVEY: Footage	SURVEY: Bearing	ANGLE: Reading	ANGLE: Corrected
780	fault				266 – 786' Mottled dolostone				
740					286' – 310' Brecciated laminated zebra-banded dolostone				
700					310' – 326' Brecciated mottled dolostone				
660					326' – 333' Brecciated zebra banded dolostone (20°)				
					333' – 339' Brecciated mottled dolostone				
					339' – 352' Laminated dolostone (40°)				
620					352' – 386' Interbedded mottled dolostone, massive dolostone & laminated dolostone.				
580					386' – 458' Mottled dolostone				
540			(sp)		458' – 473' Laminated dolostone (25°)				
500					473' – 484' Mottled dolostone (45°)				
460					484' – 498' Laminated dolostone (75°)				
420					498 END OF HOLE				
380									
340									
300									
260									
220									
180									
140									
100									
60									
20									
END									

DRILLING INTERVAL

% CORE RECOVERED

BOX No.

SURVEY: Acid Shots		ANGLE	
Footage	Bearing	Reading	Corrected
Collar	000		46.5
200'		50°	44.5
400'		49°	42.5
625'		51°	42.5
672'		49°	40.5

Purpose
Comment

0-20' casing no core

20.0'-124.0' Greyish green argillite

46° 20' 58° 43° 70° 72°

124.0-126.1 Greenish grey to Micaceous material

126.1-135.0 Greenish grey argillite

135.0 138° 135-137 Lt. grey limestone

137-143 Interlaminated Blk argillite & lt. grey siltstone

143.0 142° 143.0-172.5' Lt. dk. grey limestone.

172.5-174.9 Blk. & grey laminated siltstones

174.9-285.4 Dk. grey silty argillite

34° 55° 77°

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = 40' 0

40' 80' 120' 160' 200' 240' 264'

BOX No

% CORE RECOVERED

DRILLING INTERVAL

Length 672'
Bearing 000
Dip 46.5°
Lat 41131
Dep. 50312.
Elev 4363
O B. Thickness 141'
B.R Thickness

Contractor D.W. Coates. - L 38
Core BQ
Casing BQ 20' in hole
Logged by W.E.K. Date Aug 20, 1977
Location West Zone
Started 3 Aug. Finished
Started Finished 6 Aug. 2 pm

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C 77-26
Project Craig
Claim

Page 1 of 3

Length _____ Contractor _____

Bearing _____

Dip _____

Lot _____

Logged by WEK

Dep _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

MCINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No S-77-26

Project Eaglet

Claim _____

Page 2 of 3

BOX No	% CORE RECOVERED	DRILLING INTERVAL	ALTERATION	MINERAL FRACTURE	GEOLOGY	Purpose Comment	SURVEY: Footage	SURVEY: Bearing	ANGLE: Reading	ANGLE: Corrected
		264								
		304								
		344								
		384								
		424								
		464								
		504								
		528								

285.4' 285.4-285.6 Fault gouge material

285.6' 285.6-326.2' Blk. graphitic argillite. 48°

58°

326.2' 326.2-333.6' Interbanded blk. argillite & lt. grey limestone. 73°

333.6' 333.6-336.6' Locally consolidated sandy arg.

336.6' 336.6-373.5' M. grey dolostone locally stratabate & brecciated

30°

373.5' 373.5-401.0' M. grey stratabate dolostone 28°

373.0' a 1' vein of sph & quartz

401.0' 401.0-408.0' M. grey pebble brecciated dolostone 35°

401.5' sph & minor galena with quartz

408.0' 408.0-411.5' Pebble bed zone M. grey dolostone

411.5' 411.5-428.2' V.M. grey pebble brecciated dolost.

428.2' M-H grey very finely brecciated dolostone

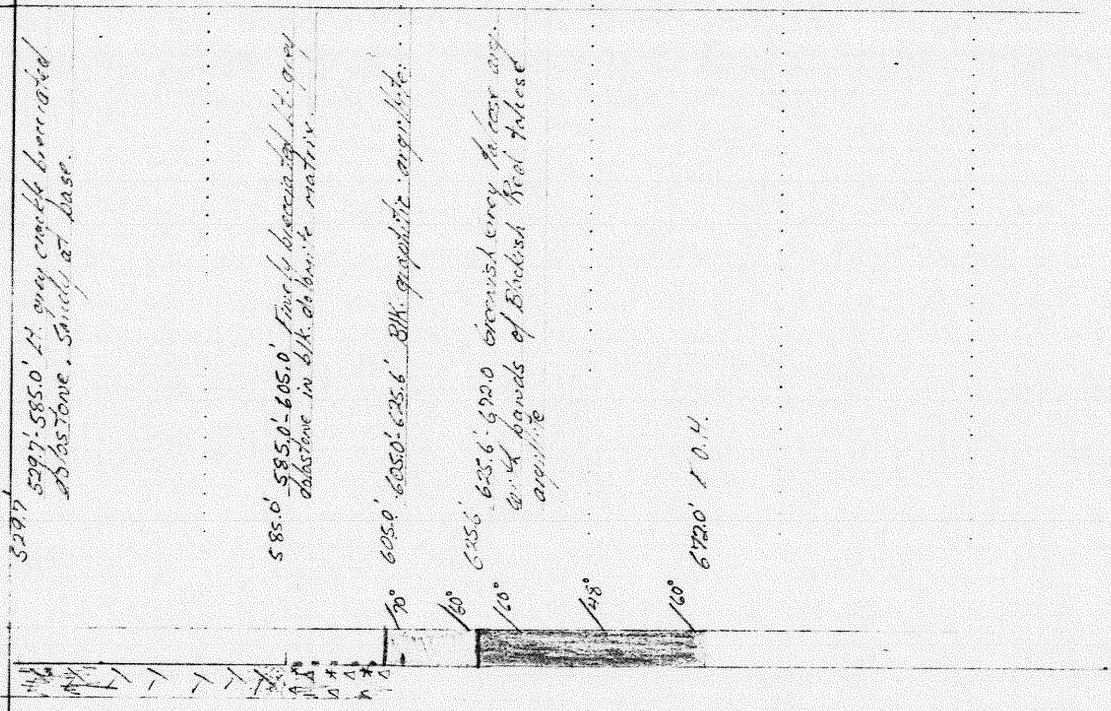
451.0' 451.0-529.7' M.H. grey stratabate dolost. 20°

30°

41°

21°

SURVEY: Footage	Bearing	ANGLE Reading	Corrected



GEOLOGY

MINERAL

FRACTURING

SCALE 1" = 40'

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____

Dip _____ Casing _____

Lat. _____ Logged By WEK Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

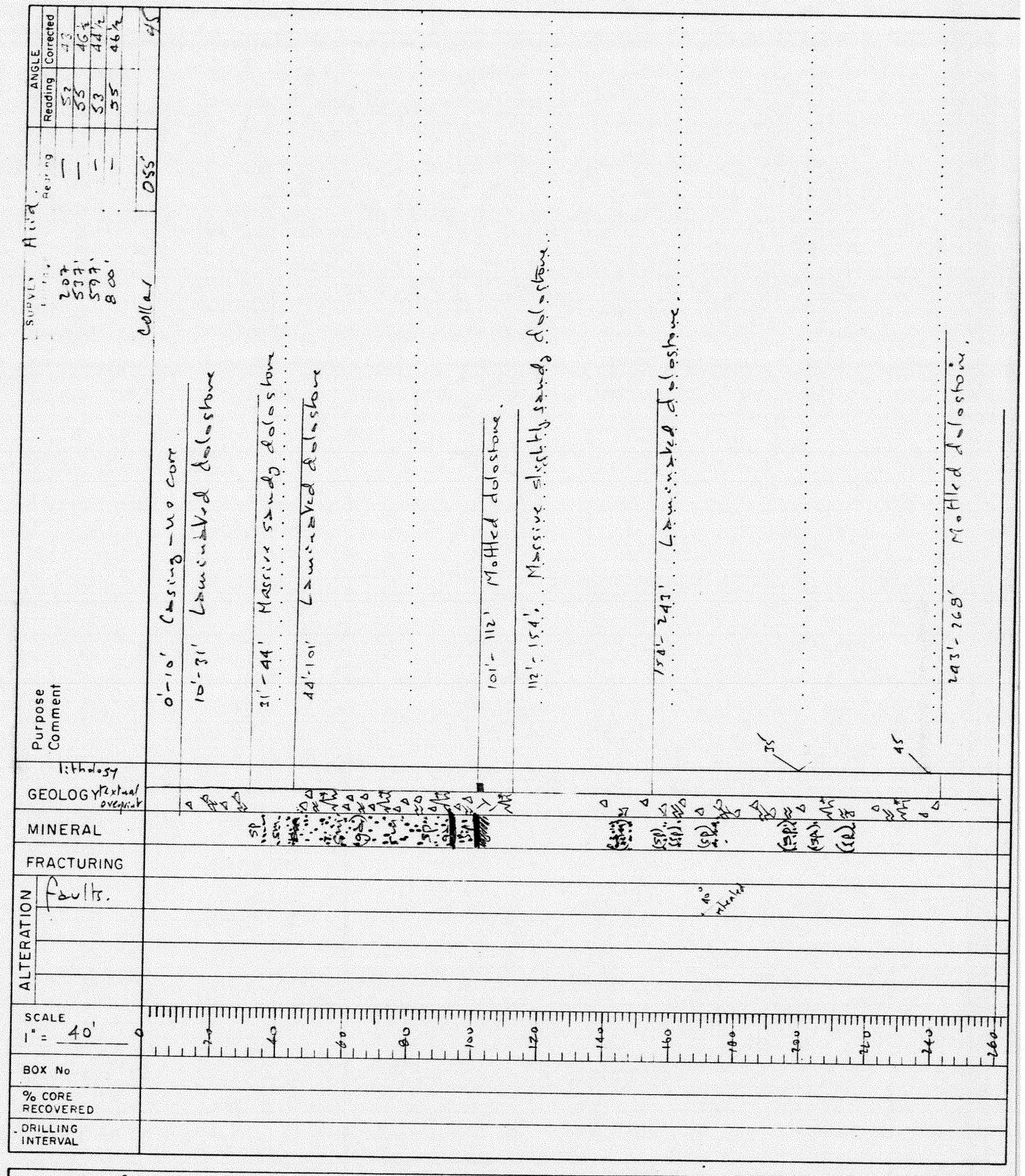
GEOLOGICAL DEPARTMENT

Hole No C-77-26

Project Craig

Claim _____

Page 3 of 3



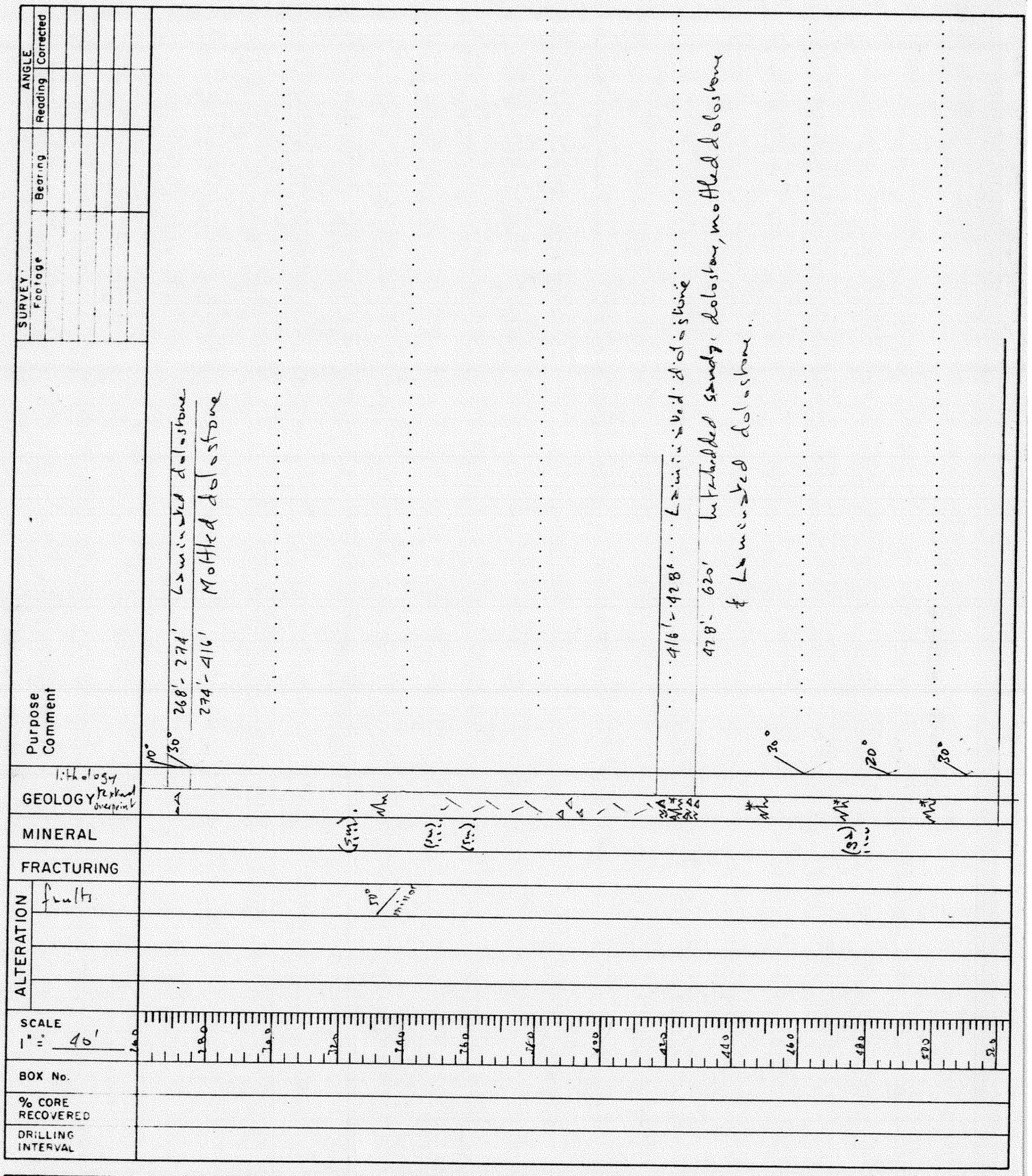
Length 800'
Bearing 055°
Dip -46°
Lat 38945
Dep. 58999
Elev 5032
O B. Thickness 8'
B R Thickness

Contractor Cantes Enterprises (BBS-1)
Core BQ Stored Tara Lake Camp
Casing Left in hole BQ 10'
Logged by A.M.S.Clark Date 6th - 7th August 1977
Location Discovery Zone

Started 4th Aug 77 Finished 4th Aug 77
Started 4th Aug 77 Finished 6th Aug 77 12Am

MCINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C-77-27
Project Craig
Claim



Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by A.H.S. Clark Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

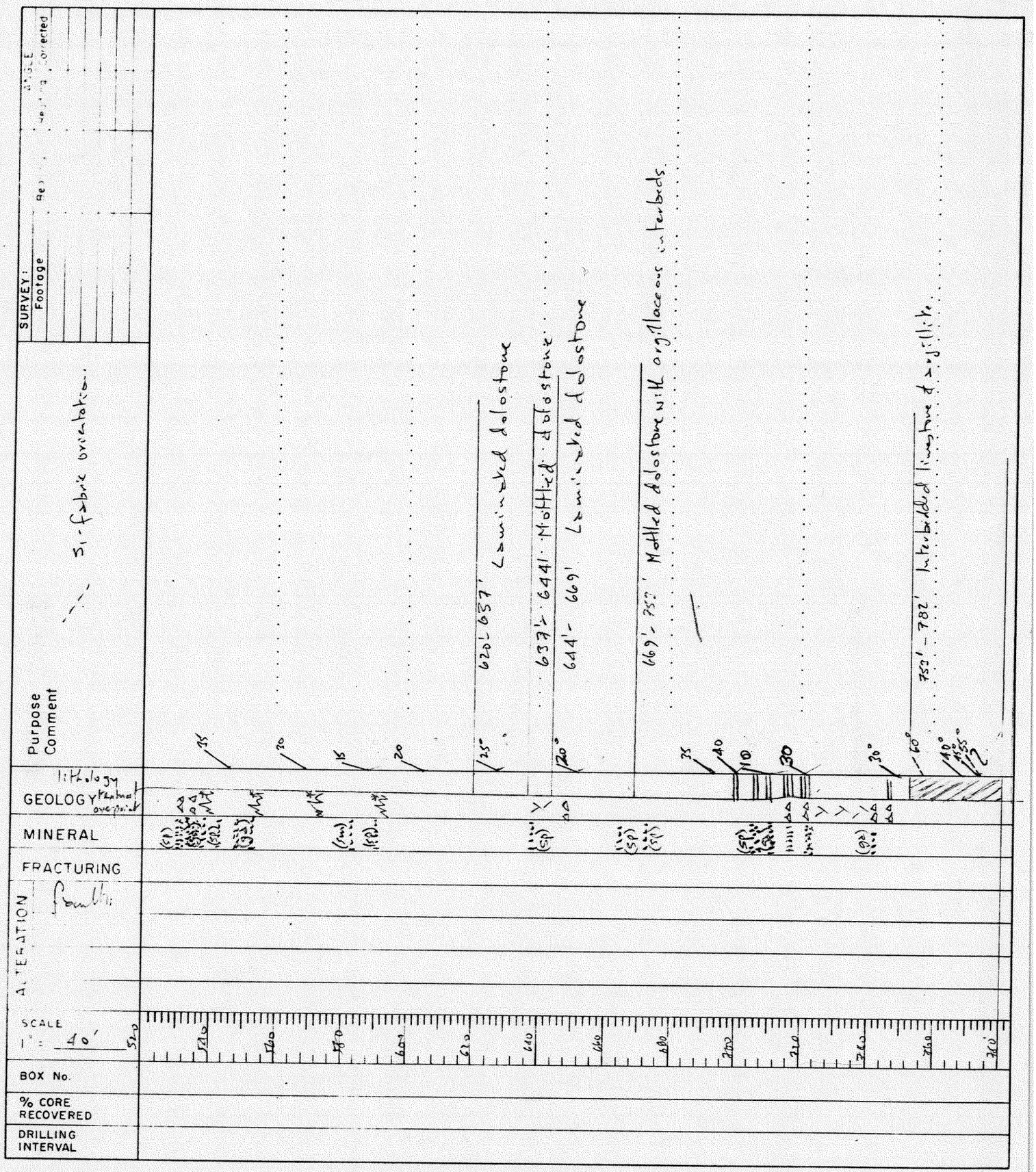
McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No C-77-27

Project Craig

Claim _____



Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat _____ Logged by A.M.S. Clark Date _____

Dep _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No C 77-27

Project Craig

Claim _____

Page 3 of 4

SURVEY: Footage | Bearing | ANGLE: Reading | Corrected

Purpose
Comment

--- Sulfide orientation

780' – 800' Black living argillite

800' END OF HOLE

Lithology

GEOLOGY (Textural / Original)

MINERAL

FRACTURING

ALTERATION: faults

SCALE 1" = 40'

780

800'

BOX No

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat _____ Logged by A.M.S Clark Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No C-77-27

Project Craig

Claim _____

Page 4 of 4

SURVEY: Flat 24 mm.		ANGLE	
Footage	Bearing	Reading	Corrected
Collar	000°		67°
200		67	68°
450		57	47°
715			44.5

Purpose
Comment

0-23' casing no core

23.0

23.0'-46.5' Tuffaceous bed lt. grey aph. & lt. grey siltstone

46.5

46.5'-55.0' Lt. U.H. grey siltstone

55.0

55.0'-88.5' Greenish grey - grey argillite

88.5'-95.2' U.H. grey siltstone

95.2'-120.5' Greenish grey argillite.

120.5'-155.0' Intercalated blk. silty green grey argillite & grey siltstone.

155.0'-192.9' Lt. grey-U.H. grey siltstone.

192.9'-196.5' Fault zone; contains gouge, blk. crushed argillite & calcite.

196.5'-339.7' Lt. grey siltstone.

160-161' Light grey siltstone to fine sandstone
Limestone

171.8'-172.0' Fine sandstone quartz veining

28° 28° 58° 46° 31° 42° 45° 33° 50° 65° 54° 30° 50° 50°

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = 10' 0 40 80 120 160 200 240 264

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length 715'
Bearing 000°
Dip 67°
Lat. 41130
Dep. 50312
Elev 4363
O.B. Thickness 21' Started 6 Aug.
B.R. Thickness Started

Contractor D.W. Coates L38
Core BQ Stored Uniconner
Casing BQ 20' in hole
Logged by W.E.K. Date Aug 21, 1977
Location West Zone.
Finished
Finished 8 Aug. 10 33 pm

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No. C-77-28
Project Craig
Claim

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

Purpose
Comment

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = 40'

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Started _____

Dip _____ Casing _____ Completed _____

Lat. _____ Logged by WEK Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Completed _____

B.R. Thickness _____ Started _____ Completed _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No C-77-28

Project Craig

Claim _____

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

548.6 a few coarsely crystalline quartz veins

543.3' - 555.2' Mafic dyke, chilled contacts, fine grained

18° 555.2' - 565.0' Medium grained feldspathic sandstone

565.0 - 580.0' Interbedded siltstone and sandstone

60° 580.0 - 601.0' Fine grained feldspathic sandstone

@ 600 - 601' Siltstone and sandstone.

58° 601.0' - 629.0' Fine grained feldspathic sandstone with a few pebble conglomerate bands near top of pressure

629.0' - 645.7' Fine grained feldspathic sandstone

45° 645.7' - 663.7' Interbedded siltstone and feldspathic sandstone.

663.7' - 684.7' Fine grained siltstone and sandstone

65° 684.7' - 701.6' Fine grained feldspathic sandstone.

701.6' Massive siltstone and fine grained sandstone.

72° 709.6 - 715.0' Coarse grained feldspathic sandstone

75° 715.0 E.O.H.

Purpose
Comment

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE 1" = 40'

368 608 648 688 728

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by WEK Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

Hole No C-77-28

Project Craig

Claim _____

SURVEY	Footage	Bearing	ANGLE Reading	ANGLE Corrected
Collar	0			90°
	298		88	87°
	339		87	86°
	350		89	88.5°

Purpose
Comment

0'-11' Casing - no core
11'-311' Laminated dolostone

Lithology

GEOLOGY (textural overprint)

MINERAL

FRACTURING

ALTERATION fault

SCALE 1" = 10'

BOX No

% CORE RECOVERED

DRILLING INTERVAL

Length 380'
Bearing 000°
Dip -90°
Lat 3894
Dep 5898
Elev 5032
O B. Thickness 11'
B.R Thickness

Contractor Coates Enterprises (TIS-1)
Core BQ Stored Tara Lake Camp
Casing Left in hole BQ 10'
Logged by A.M.S Clark Date 7th August 1977
Location Discovery Zone
Started 6th Aug. 77 Finished 6th Aug 77
Started 6th Aug 77 Finished 7th Aug 77 4:30 pm.

McINTYRE MINES LIMITED
EXPLORATION DEPARTMENT

Hole No C77-29
Project Craig
Claim

Page 1 of 2

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

Purpose
Comment

Lithology
GEOLOGY texture/ overprint

MINERAL

FRACTURING

ALTERATION

Faults

311'-380 Massive dolerite

380' END OF HOLE

15°

25°

15°

SCALE 1" = 40'

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by AMC Clark Date _____

Dep. _____ Location _____

Elev _____

O B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

McINTYRE MINES LIMITED

EXPLORATION DEPARTMENT

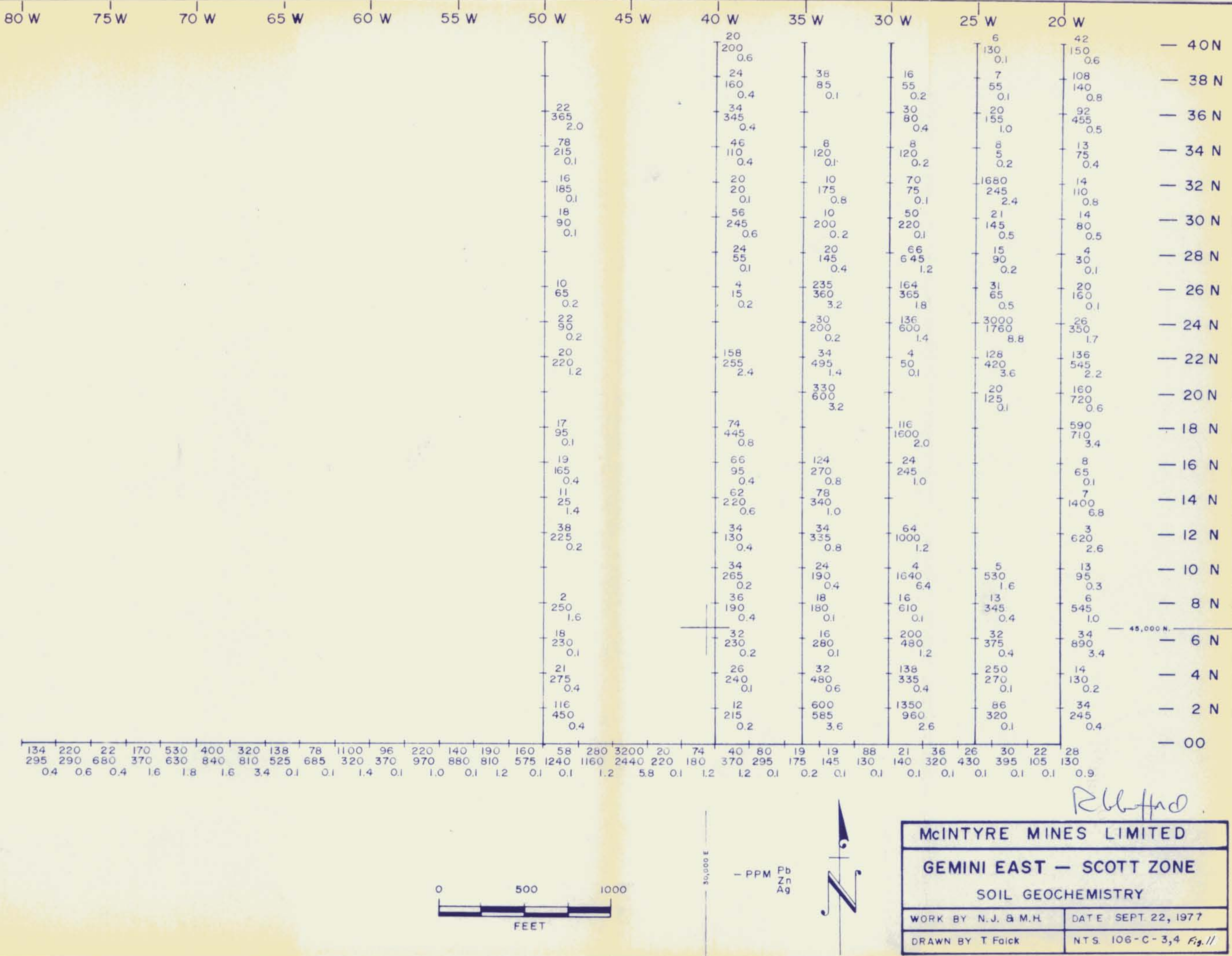
Hole No C77-29

Project Craig

Claim _____

Page 2 of 2


50000
45000N
45000
40000
Sample No ● PPM Pb/Zn/Ag
0 1000 2000
FEET
McINTYRE MINES LIMITED
CRAIG WEST
SOIL GEOCHEMISTRY
WORK BY: N. ARNOLD
DATE: 21/Sept. 77

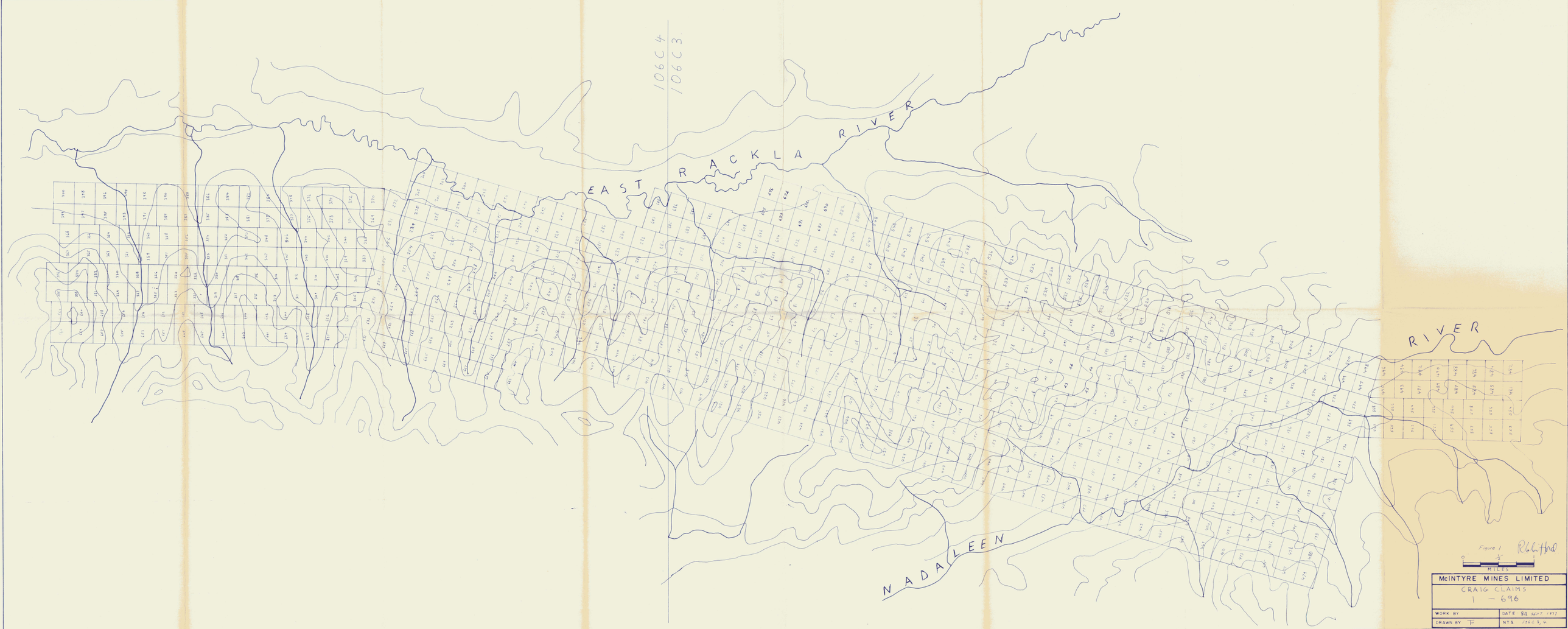


McINTYRE MINES LIMITED

GEMINI EAST — SCOTT ZONE

SOIL GEOCHEMISTRY

WORK BY N.J. & M.H.	DATE SEPT. 22, 1977
DRAWN BY T Falck	N.T.S. 106-C-3,4 Fig. 11


EAST RACKLA RIVER
RIVER
NADALEEN
106C4
106C3
Figure 1
0 1/2 1
MILES
McINTYRE MINES LIMITED
CRAIG CLAIMS
1 - 696
WORK BY
DRAWN BY F.
DATE 28 SEPT 1973
NTS 106C 3, 4

LEGEND

DEVONIAN

9 CHERT: black to gray;
(a) Chert-pebble conglomerate,
(b) Argillite; black.

ORDOVICIAN - SILURIAN

8 ARGILLITE: black, fissile; dark gray to black weathering;
(a) Chert beds in part, black,
(b) Silvery weathering argillite,
(c) Interbedded silvery weathering argillite and black chert.

7 LIMESTONE: medium gray, locally fossiliferous.

HADRYNIAN

6 PYROCLASTIC ROCKS: intermediate composition, grayish olive green;
(a) Tuff, volcanic breccia,
(b) Tuff.

5 MAFIC FLOWS: greenish black, pillows locally.

4 LIMESTONE: argillaceous, medium light gray to dark gray;
(a) Argillite interbeds, dark gray to black,
(b) Minor dolomite, light brown weathering, some chert in nodules and narrow bands.

3 DOLOMITE: medium gray;
(a) Brecciated in part.

2 QUARTZITE, CONGLOMERATE: usually argillaceous, medium dark gray to dark gray;
(a) Conglomerate, some ferrodolomite clasts.

1 ARGILLITE, SUBORDINATE SILTSTONE: medium dark gray to black, some medium gray;
(a) Black argillite,
(b) Greenish-gray and/or dusky red argillite,
(c) Chert, siliceous argillite.

A SERPENTINITE: greenish black to brilliant green.

B FERRODOLOMITE: moderate reddish brown weathering, quartz seams common, some chert patches.

C DIABASE: dykes and/or sills.

BRECCIA.

SILICIC ALTERATION.

GALENA, SPHALERITE:
Strong (As) Realgar
Moderate (Ba) Barite
Weak

Float Locality
Fossil Locality
Contact (approximate, inferred)
Fault (approx., inferred)
Thrust Fault (approx., inferred)
Bedding
Foliation
Minor Fold
Lineation

Top direction, determined from:
cb - cross-bedding
fs - flame structures
rm - ripple marks
sc - scour structure
tb - truncated bedding

0 50 100 200 300 400 600 800 1000
FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - WEST ZONE

GEOLOGY

R. Gifford

Work by	R. GIFFORD, W. KILBY	Revisions:	Map No. Figure 2
Drawn by	R.T. FALCK		
Date	AUGUST, 1977		
Scale	1 inch = 200 Feet	Project No	12008

LEGEND

DEVONIAN

9 CHERT: black to gray;
- (a) Chert-pebble conglomerate,
- (b) Argillite; black.

ORDOVICIAN - SILURIAN

8 ARGILLITE: black, fissile, dark gray to black weathering;
- (a) Chert beds in part, black,
- (b) Silvery weathering argillite,
- (c) Interbedded silvery weathering argillite and black chert.

7 LIMESTONE: medium gray, locally fossiliferous.

HADRYNIAN

6 PYROCLASTIC ROCKS: intermediate composition, grayish olive green;
- (a) Tuff, volcanic breccia,
- (b) Tuff.

5 MAFIC FLOWS: greenish black, pillows locally.

4 LIMESTONE: argillaceous, medium light gray to dark gray;
- (a) Argillite interbeds, dark gray to black,
- (b) Minor dolomite, light brown weathering, some chert in nodules and narrow bands.

3 DOLOMITE: medium gray;
- (a) Brecciated in part.

2 QUARTZITE, CONGLOMERATE: usually argillaceous, medium dark gray to dark gray,
- (a) Conglomerate, some ferrodolomite clasts.

1 ARGILLITE, SUBORDINATE SILTSTONE: medium dark gray to black, some medium gray;
- (a) Black argillite,
- (b) Greenish-gray and/or dusky red argillite,
- (c) Chert, siliceous argillite.

A SERPENTINITE: greenish black to brilliant green.

B FERRODOLOMITE: moderate reddish brown weathering; quartz seams common, some chert patches.

C DIABASE: dykes and/or sills.

BRECCIA.

SILICIC ALTERATION.

GALENA, SPHALERITE;
- Strong (Aa) Realgar
- Moderate (Ba) Barite
- Weak

Float Locality

Fossil Locality

Contact (approximate, inferred)

Fault (approx., inferred)

Thrust Fault (approx., inferred)

Bedding — Minor Fold

Foliation — Lineation

Top direction, determined from:
- cb - cross-bedding
- fs - flame structures
- rm - ripple marks
- sc - scour structure
- tb - truncated bedding

0 50 100 200 300 400 600 800 1000
FEET

McINTYRE MINES LIMITED
VANCOUVER - CANADA

CRAIG CLAIMS - DISCOVERY ZONE

GEOLOGY

R. Gifford

Work by:	R. GIFFORD, A. CLARK, W. KILBY	Revisions	Map No. Figure 3
Drawn by:	R.T. FALCK		
Date:	AUGUST, 1977		
Scale:	1 inch = 200 Feet	Project No.	12008

72000 E

74000 E

76000 E

Nadaleen River

34000 N

32000 N

2500

2600

2700

inferred thrust fault

Unit 7 Massive lst. (Dolc)

7

n

3b

Sparrite - grey tan sugary weathering light grey dolo, silicified along fractures, galena, sphalerite, malachite veins and veinlets common in upper Section
grab 19776 6.0/2.6/1.74
non-representative

Silicified and moderately mineralized
Non Rep. grab 16.4/4.7/4.64
Rep grabs 3.16/1.68/0.17
Aw ≈ 5'
18.0/1.40/5.22
Aw ≈ 5'

Unit 1, may be in part Unit 8, dark grey shale, slate and silicified silty argillite, poor rubbly outcrop.

C77-16 (-51°, 180°)

C77-14 (-46.5°, 174°)

C77-17 (-40°, 180°)

C77-12 (-48°, 359°)

Dark grey, very fine grained siliceous rock. ZnS, PbS, or heavily leached leaving Siliceous bokwark as in Discovery Zone.
Rep. Channel Samples 1.14/0.6/1.74
Aw ≈ 95'

Unit 1
greasy green & grey shale, argillite.

Base Line @ 1100

massive grey

Approx. Position of Claim Line

2622

Weakly mineralized, local "pinhead" red Sphalerite

Dark dolo some bx

2636

massive grey

dark grey

grey, apple green & maroon Shale in creek float

LEGEND

- 3 Dolomite;
  - (a) breccia, Zebra fabric in part
  - (b) Silicic in part
- 7 - Micrite, micrite bx or micsparrite
- 1 - Shale, mudstone, Slate.
- Galena, Sphalerite

Assay results -

% Pb Zn oz. Ag

AW - apparent or TW - true width

- Forest
- Swamp

} Covered Areas

FEET

McINTYRE MINES LIMITED

CRAIG CLAIMS — TRENT ZONE

GEOLOGY

R. Clifford

WORK BY A. Birkeland	DATE July 1977
DRAWN BY A.R. Gunther/R.T.F.	NTS 106-C-3 Figure 4

LEAD > 500 PPM
ZINC > 1500PPM
SILVER > 7.5PPM
Pb / Ag Zn

McINTYRE MINES LIMITED

CRAIG CLAIMS - WEST ZONE

SOIL GEOCHEMISTRY

R.B. Gifford

WORK BY B. GIFFORD	DATE Aug 1971
DRAWN BY A.R. Gunther/R.T.F.	NTS 106-C-3 Figure 5

LEAD ≥ 500 PPM
ZINC ≥ 1500 PPM
SILVER ≥ 7.5PPM
Pb / Ag Zn

Figure 6

200 100 0 200 400 600
FEET

McINTYRE MINES LIMITED

CRAIG CLAIMS - AZURE ZONE

SOIL GEOCHEMISTRY

R. Clifford

WORK BY B. GIFFORD	DATE Aug 1971
DRAWN BY A.R. Gunther/RTF	NTS 106-C-3 / CTG 10-Z

C77-22

C77-19

C77-23
C77-25

C77-27
C77-29

500

7.5

1500

7.5

1500

7.5

500

1500

500

1500

1500

1500

1500

LEAD > 500 PPM

ZINC > 1500 PPM

SILVER > 7.5PPM

Pb / Ag Zn

FEET

McINTYRE MINES LIMITED

CRAIG CLAIMS - DISCOVERY ZONE

SOIL GEOCHEMISTRY

R Gifford

WORK BY B.GIFFORD	DATE Aug 1971
DRAWN BY H.R. Gunther/F.Falck	NTS 106-K-3 Figure 7

LEAD > 500 PPM
ZINC > 1500 PPM
SILVER > 7.5 PPM
Pb / Ag Zn

Figure : 8

FEET

McINTYRE MINES LIMITED

CRAIG CLAIMS - NADALEEN ZONE

SOIL GEOCHEMISTRY

P.L. Gifford

WORK BY B. GIFFORD	DATE Aug 1977
DRAWN BY A.R. Gunther/T.Folck	NTS 106-C-3 / CTG 10-4

1500

500

500

1500

C77-16

C77-14

C77-17

C 77-12

1500

1500

No Sample

LEAD > 500 PPM

ZINC > 1500 PPM

SILVER > 7.5 PPM

Pb / Ag Zn

200 100 0 200 400 600

FEET

McINTYRE MINES LIMITED

CRAIG CLAIMS - TRENT ZONE

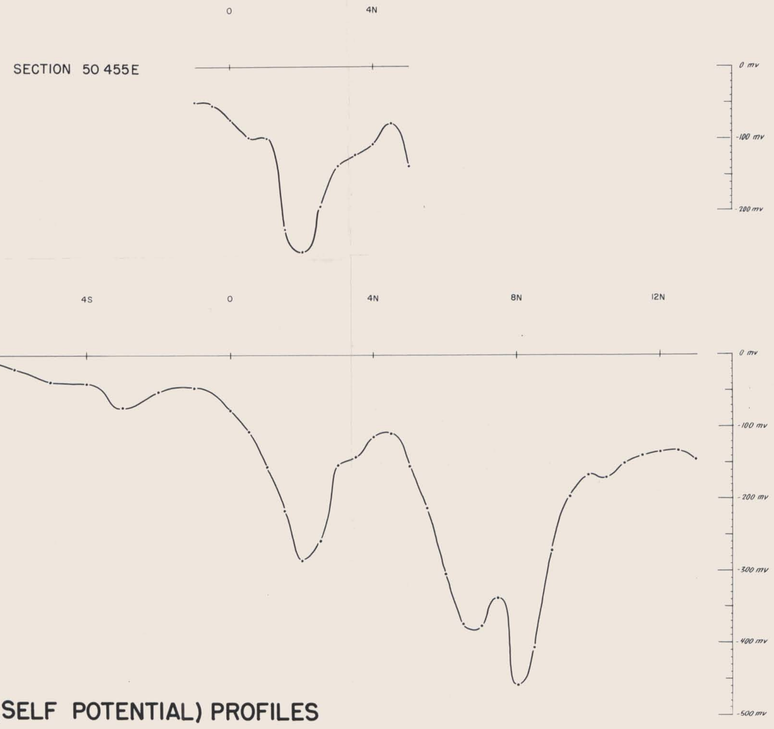
SOIL GEOCHEMISTRY

WORK BY B. GIFFORD

DATE Aug. 1977

DRAWN BY A.R. Gunther/R.T.F.

NTS 106-C-3 Figure 9

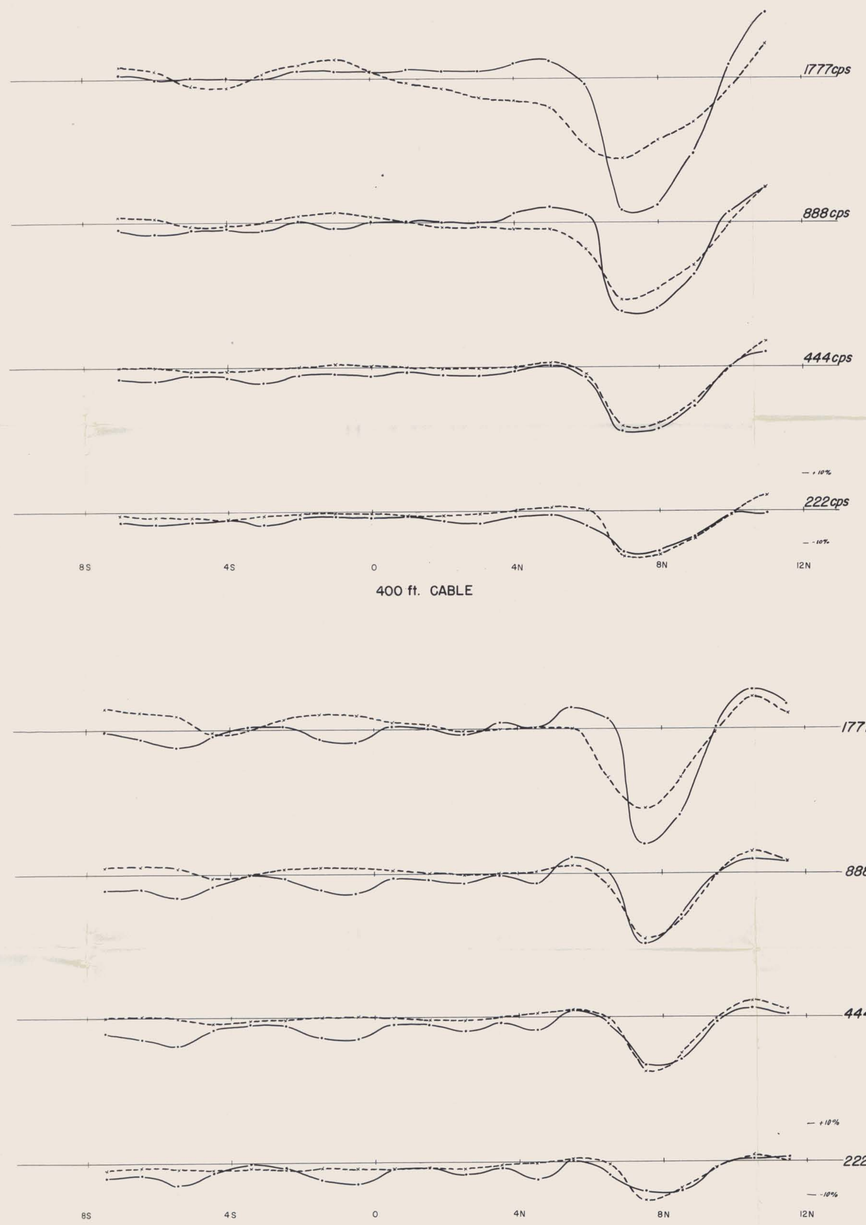


S.P. (SELF POTENTIAL) PROFILES

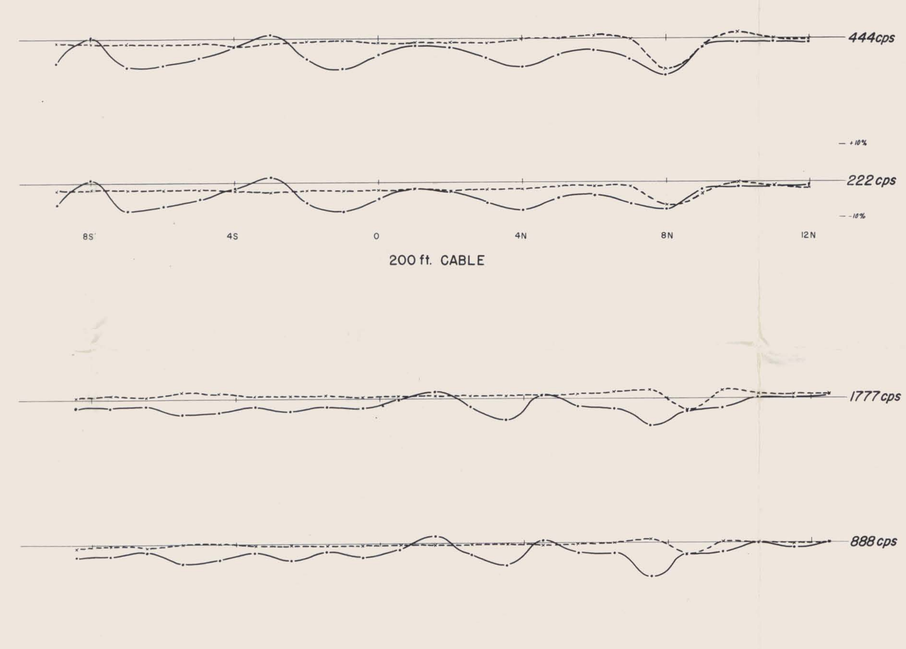
LEGEND

INSTRUMENT: McPhar S.P. Unit

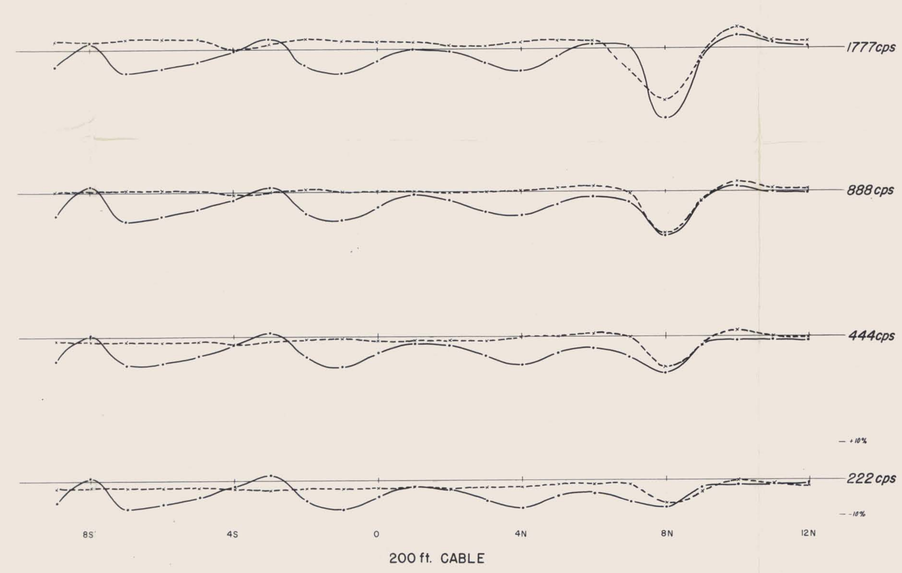
Scales: 1" = 200'
1" = 100 millivolt



400 ft. CABLE



300 ft. CABLE



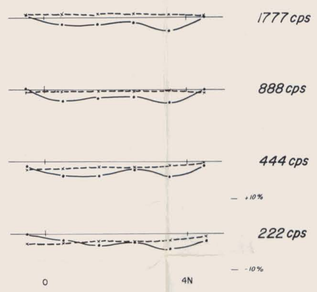
200 ft. CABLE

TOTAL INTESITY MAGNETIC PROFILES

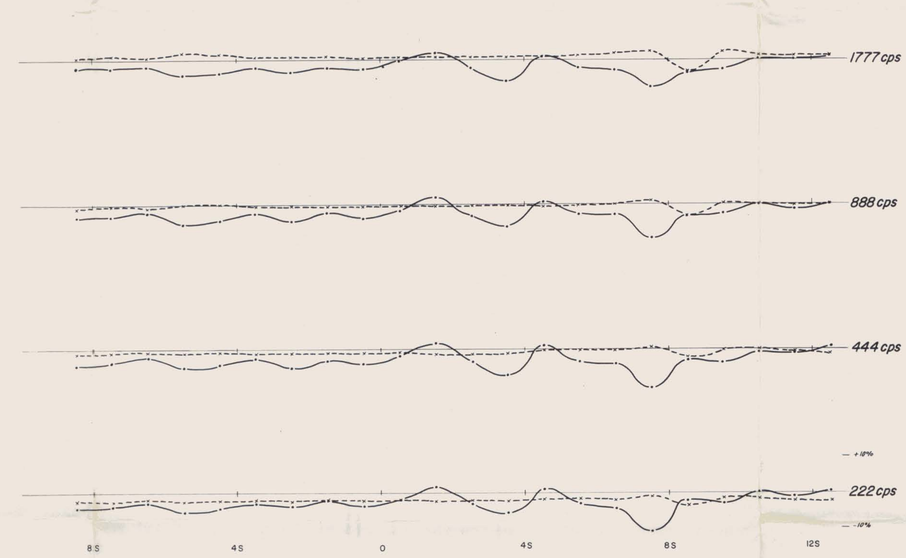
LEGEND

INSTRUMENT: Scintrex IMP-2 Magnetometer

SCALES: 1" = 200'
1" = 100 gammas



100 ft. CABLE



100 ft. CABLE

LEGEND

INSTRUMENT: Apex Maxmin II

FREQUENCY: As Shown

CABLE LENGTH: As Shown

•——• In Phase Profile

×- - - - × Out of Phase Profile

Scale of Profile 1" = 200'
1" = 20%

H.E.M. PROFILES - OFFSET SECTION 50455E

H.E.M. PROFILES - SECTION 50505E

TOPOGRAPHIC PROFILE AND GEOLOGICAL SECTION

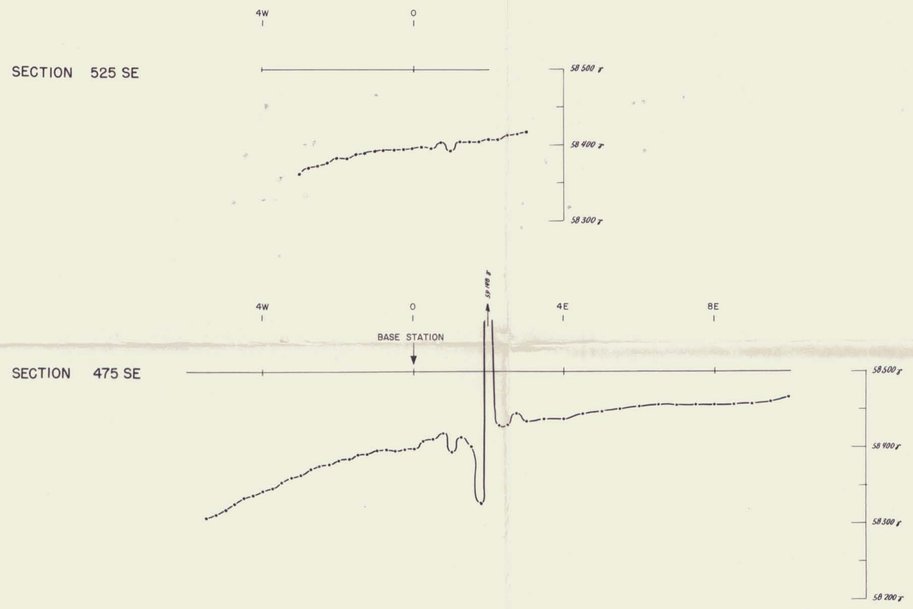
McINTYRE MINES LIMITED
TIMMINS - CANADA

CRAIG CLAIMS - WEST ZONE

GEOPHYSICAL PROFILES

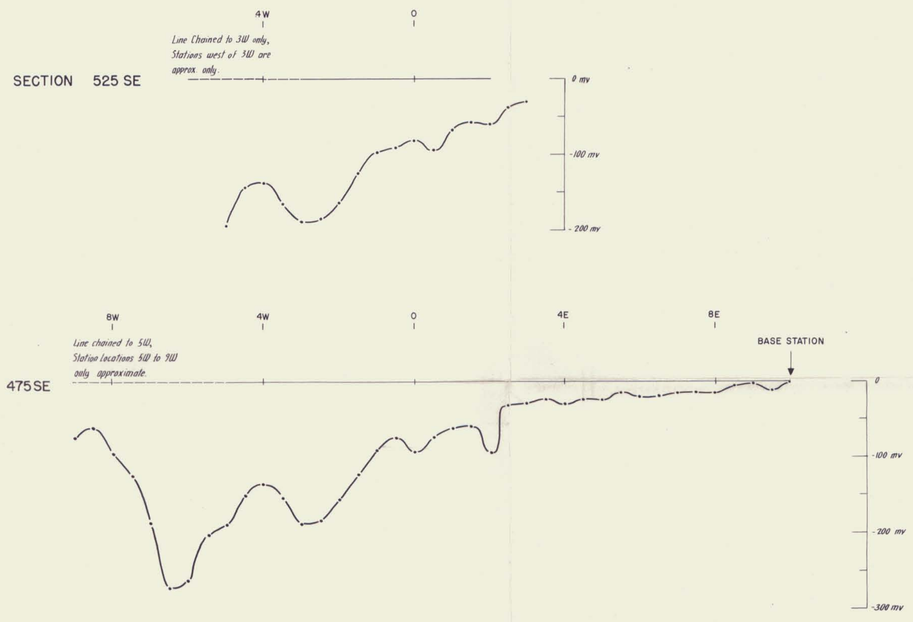
R Gutherford

Drawn by	A.R. Gunther	Revisions	Map No.
Work by	I. Atkinson		Figure 12
Date	August, 1977		
Scale	As Shown	Project No. 12 008	



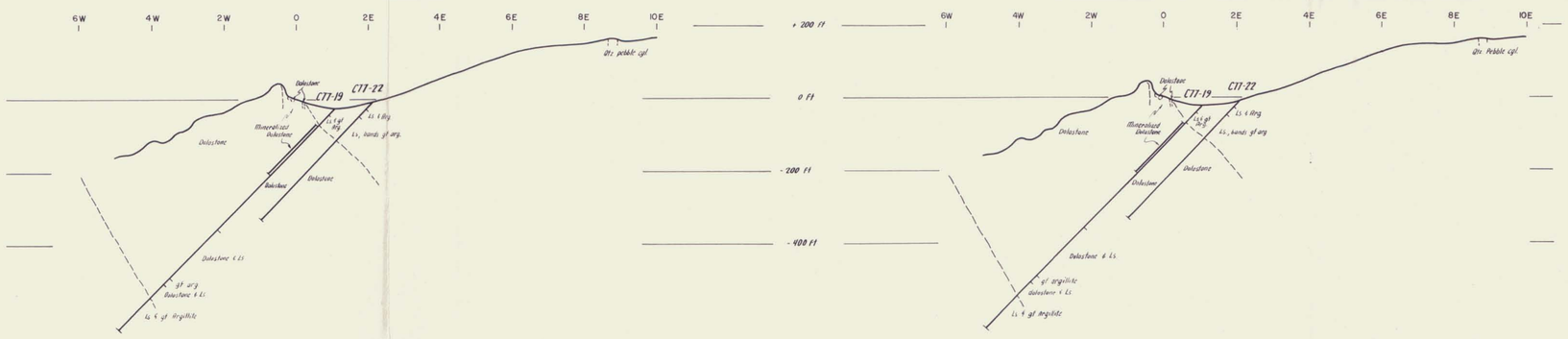
TOTAL INTENSITY MAGNETIC PROFILES

Instrument: Scintrex MP-2 Proton Magnetometer
Scales: 1" = 200'
1" = 100 gammas

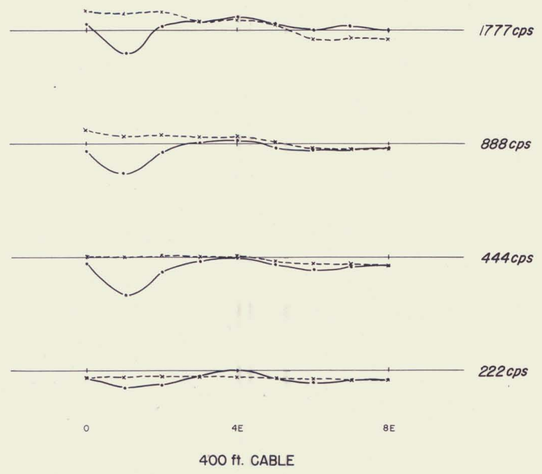


S.P. (SELF POTENTIAL) PROFILES

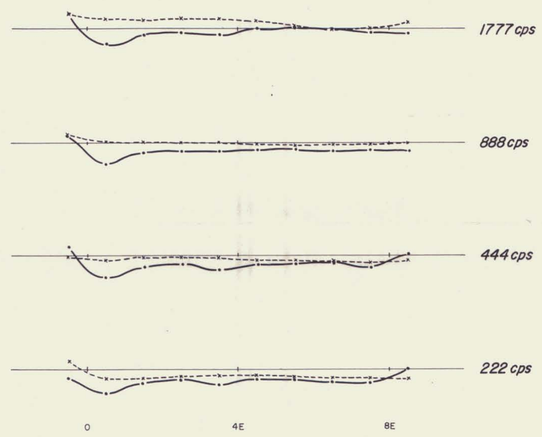
Instrument: McPhar SP Unit
Scales: 1" = 200'
1" = 100 millivolts



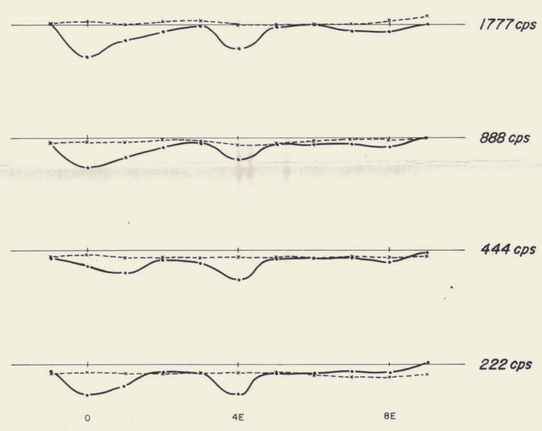
TOPOGRAPHIC PROFILE AND GEOLOGICAL SECTION



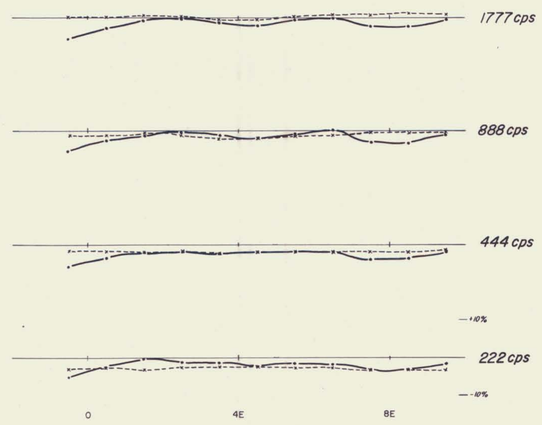
400 ft. CABLE



300 ft. CABLE



200 ft. CABLE



100 ft. CABLE

H.E.M. PROFILES

INSTRUMENT: Apex MaxMin II
FREQUENCY: As Shown
Cable Length: As Shown
—•— In Phase Profile
×----× Out of Phase Profile
Scale: 1" = 200'
1" = 20%

McINTYRE MINES LIMITED
TIMMINS - CANADA

CRAIG CLAIMS - DISCOVERY ZONE

GEOPHYSICAL PROFILES

R Blackford

Drawn by	A.R. Gunther	Revisions	Map No.
Work by	I. Atkinson		Figure: 13
Date	August, 1977		
Scale	As Shown	Project No.	12 008

SP 930-1

SP 930-2

SP 930-3

SP 930-4

SP 930-5

SP 930-6

Kill Zone

CTT-1 CTT-2 CTT-3 CTT-4 CTT-5 CTT-6 CTT-7 CTT-8 CTT-9 CTT-10 CTT-11 CTT-13 CTT-14 CTT-15 CTT-16 CTT-17 CTT-18 CTT-19 CTT-20 CTT-21 CTT-22 CTT-23 CTT-24 CTT-25 CTT-26 CTT-27 CTT-28

PROFILE 5S 525

PROFILE 1W PROFILE 1NW PROFILE 1SW PROFILE 1W PROFILE 1E PROFILE 1SE PROFILE 1NE PROFILE 2E PROFILE 3E PROFILE 4E PROFILE 5E PROFILE 6E PROFILE 7E PROFILE 8E PROFILE 9E PROFILE 10E PROFILE 11E PROFILE 12E

40000N 42000N 44000N 46000N 48000E 50000E 52000E 54000E

SCALE

HORIZONTAL 1" = 200 feet
VERTICAL 1" = 200 millivolts

MILLIVOLTS 400 300 200 100 0

FEET 0 100 200 300 400

200 100 0 200 400 600 FEET

McINTYRE MINES LIMITED

CRAIG CLAIMS - WEST ZONE

SELF POTENTIAL SURVEY

R. Clifford

WORK BY R. Gifford D. Murphy	DATE Sept 1977
DRAWN BY A.R. Gunther	NTS 105-C-3 Figure: 14