GEOPHYSICAL REPORT

ELECTROMAGNETIC (VLF-EM) SURVEY

ON

YUMA MINERAL CLAIM

WELLS-BARKERVILLE AREA, CARIBOO MINING DIVISION

LATITUDE 53° 07' North

LONGITUDE 121° 35' West

FOR

INTERNATIONAL SHASTA RESOURCES LTD.
#409 - 1200 West Pender Street
Vancouver, B.C.
V6E 2S9

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May 4, 1988

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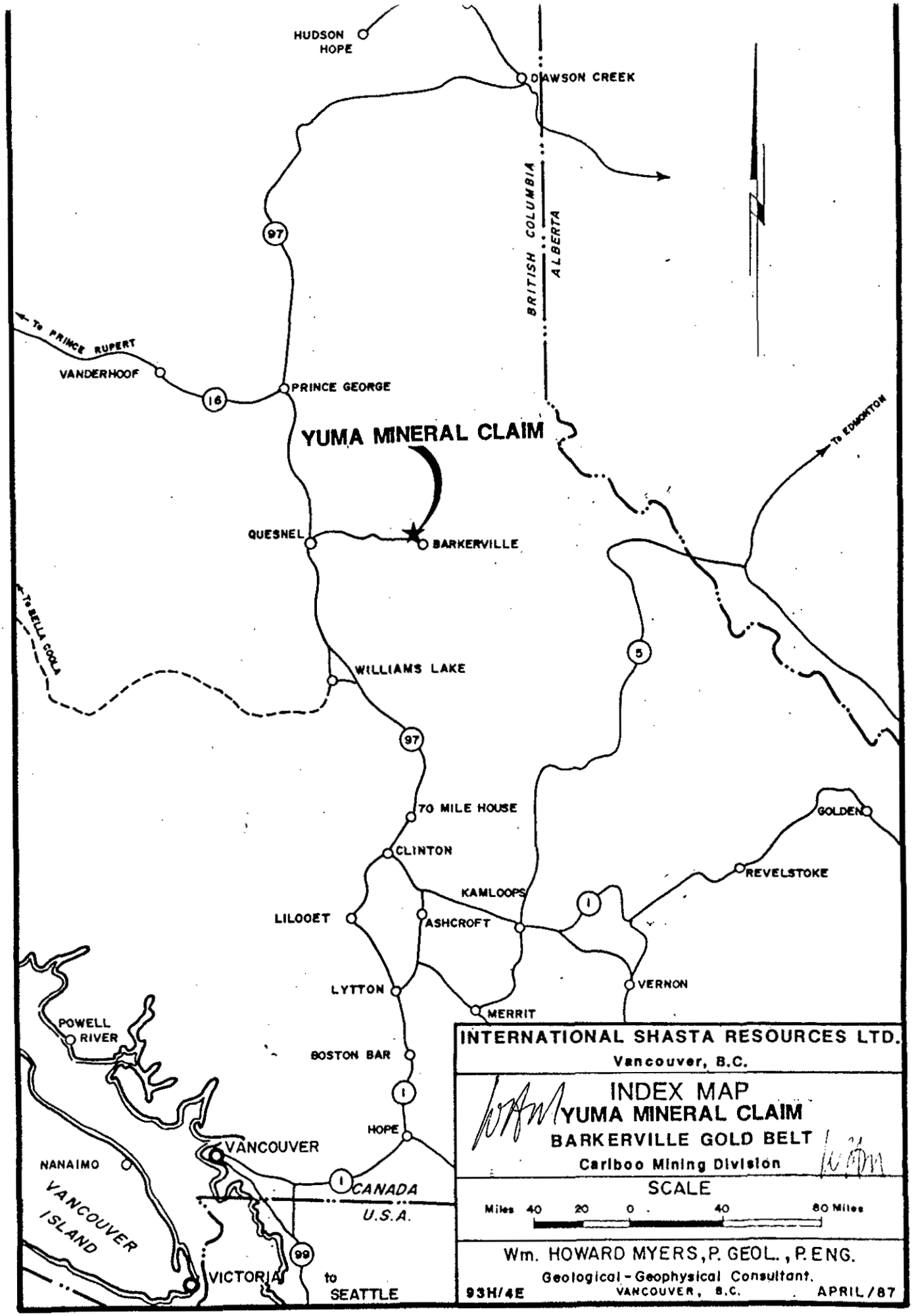
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Wm. HOWARD MYERS, P. GEOL., P. ENG.
Geological - Geophysical Consultant.
93H/4E
VANCOUVER, B.C.
APRIL/87

ABSTRACT

During April, May and June, 1987, when weather permitted, 10 days were spent in the field by the two man crew running east-west VLF-electromagnetic profiles or lines. During the ten days some 8.7 kilometers of line were run with a station spacing of 15 meters using Seattle, Washington station NLK with a frequency of 18.6 KHz. All readings were taken facing east and the raw data plotted on the enclosed cross sections with values in percentages rather than actual dip angles. The VLF electromag survey completes the coverage on the east half of the claim block with the meter line spacing. The anomalies on each line are shown on the enclosed base map. The trend of these anomalies or conductive zones are also shown on the map. The northerly trends are the strongest and most continuous and correlate with the northern extension of the prominent northerly trending faults mapped in the underground workings of the Cariboo Gold Quartz Mine to the south. The strong and continuous anomaly in the eastern portion of the claim block near the Downey Pass road corresponds with the fault mapped in the area by government publications. The depth to the source of the strong anomaly in the area of the fault in the northeast portion of the claim block varies from 200 to 600 feet below the surface. Immediately north of the claim block in other electromag work by the writer, the north-northeast fault trend and anomalies is replaced by several strong and continuous northeast trending anomalies parallel to the numerous northeast faults mapped in the Eight Mile Lake area in government publications of the area.

The north-northeast trending fault and anomaly on the electromagnetic lines in the northeast portion of the claim block, in all probability is the northern extension of the Lowhee Fault mapped to the south in surface outcrop and underground mine workings of the Cariboo Gold Quartz Mine. The fault and the corresponding anomalies should be examined at depth with a diamond drill if core can be recovered in the broken zones. The Lowhee Fault is almost vertical to the south where exposed. Angle holes could be drilled into the area of the anomalies to check at various depths for possible quartz, pyrite and gold mineralization. Placer gold was produced from old workings some 300 metres northeast of the claim block. There are no records of the amount of gold produced from the workings. The workings are substantial and not prospect pits. Samples of the quartz veins in the area of the placer workings showed substantial gold values on geochemical analysis. Shallow testing with trenching on shallow percussion or diamond drilling should also be carried out some 500 - 700 meters west of the strong fault zone in the area of northerly and northeast trending anomalies on the electromag lines. The side hill in this area contains numerous quartz boulders in the glacial drift cover.

GEOPHYSICAL (VLF - ELECTROMAGNETIC) SURVEY OF THE YUMA CLAIM BLOCKS FOR 1986 SEASON

INTRODUCTION

The field work and report on the VLF electromag survey for the 1987-88 season of the Yuma claim block were commissioned by Mr. Antony Dyakowski on behalf of Shasta International Resources, owner of this claim block. The monies spent on the field work and report were claimed as assessment work and filed on February 10th, 1988. The field crew was composed of two men under the direct supervision of Alan Samchek, Geological Engineer. The supervision of the overall programme and the interpretation of the electromagnetic data together with the report was under Wm. Howard Myers, P. Eng. (B.C.), P.Geol. (Alta), Independent Geophysical - Geological Consultant. The eleven east-west lines were run over the three month period of April, May and June when weather and other commitments permitted. A total of 10 days was required to complete the 8.7 kilometers of line. The work was slow due to difficult terrain near the eastern portion of the claim block. The breakdown of costs per day for the field work together with the detail of costs for the work are enclosed in the Appendix of the report.

The claim is identified as the Yuma claim with record number 926 and an anniversary date of February 5th, 1979. The claim contains a total of 20 units, 4 units north and 5 units west of the legal corner post.

The claim is located immediately north of the village of Wells, B.C. in the Cariboo Mining Division of British Columbia. The location of the claim is shown on the enclosed claim map in the appendix of the report. The claim map is a portion of Map 93H/4E (Mineral) published and updated periodically by the Department of Mines and Petroleum Resources of the Province of British Columbia.

The claim block is in good standing with assessment work filed through February 5, 1989.

Access to the Yuma claim is by gravel road running north northwest from the village of Wells, approximately one kilometer to the bridge over Williams Creek

near the confluence with the Willow River. Access to the eastern portion of the claim is from the Downey Creek road or locally known as the "one mile road". There is no road access to the northern portion of the claim block.

The terrain in the area of the claim is moderate with elevations varying from 1,200 metres in the south near the swamp to 1,500 metres to the north near the eastern slopes of Mt. Carnish. The terrain along the east boundary of the claim in the vicinity of Downey Pass Creek is very steep for a short distance near the creek bed.

All of the lines except the base line were run in an east-west direction using the Seattle Station NLK with a frequency of 18.6 KHz. All readings were taken facing east. The Seattle station is almost due south of the property.

The electromagnetic survey was run using the Geonics Limited EM-16 instrument with Serial No. 19010 which is owned by the writer. Station spacing on all lines was 15 metres.

The raw data from the field work has all been plotted on cross sections showing both the in-phase and out of phase or quadrature in a percent scale as outlined on the section. The horizontal scale on the cross sections is 1 centimeter equals approximately 20 metres.

Published and unpublished maps and reports used on the preparation of this report are tabulated under Bibliography located in the appendix of the report. My qualifications and experience for the report are detailed in the Certificate in the Appendix.

HISTORY

This area of the Cariboo has produced many millions of dollars in gold from both placer and lode type of deposits. The majority of the placer gold was produced during the gold rush which started around 1861 and tapered off substantially near 1898 when the gold rush started in the Yukon. There was a slight resurgence of

placer gold production in this area during the depression of the thirties. Lode gold production started in 1933 from the Cariboo Gold Quartz Mine at Wells, B.C. The Cariboo Gold Quartz Mine took over the Island Mountain Mines on the other side of the Jack of Clubs Lake, and during the period January 10, 1933 through April 15th, 1967, when the mine was closed down, some 2,929,246 tons of ore grading an average of 0.4 oz. per ton produced a total of 1,253,683 ounces of gold. The foregoing figures are from the Canadian Mines Handbook 1982-83, page 337.

The Mosquito Creek Mine located northwest of the original Cariboo Gold Quartz Mine produced gold from replacement type ore bodies in contrast to the gold produced from quartz veins with pyrite and gold in the original Cariboo Gold Quartz Mine. The Mosquito Creek Mine now owns all of the original crown granted claims of the Cariboo Gold Quartz Mine which adjoin the Arch claim on the northeast.

The 413 metre adit with a north 13° west trend located in the southern portion of the claim block, was driven in 1934. It is known as the Cariboo-Coronada Adit. It was driven to intersect the downwards extension of a number of mineralized quartz veins on the surface some 200 metres above the adit. The adit has been subsequently opened and sampled with little or no gold or silver values. VLF electromagnetic lines in the area of the adit show only minor conductive zones. Another adit near the northwest corner of the claim block or possibly off the claim block near the northwest side of Martins Creek reported higher gold and silver values. The VLF electromagnetic profiles in this area show strong northeast trending anomalies. This portion of the area contains numerous northeast trending faults as detailed in the literature and mapped in the Eight Mile Lake area northeast of the claim block.

GEOLOGY

General

A wide spread mantle of glacial drift overgrown with trees and vegetation, limits the outcrop of bedrock largely to the tops of ridges, divides and individual

mountains and along steep slopes of the more prominent rivers and streams. Outcrops of bedrock are not extensive even along the ridges and mountain tops. Local bedrock outcrops are found in the bottom of some of the incised streams.

Bedrock composed of phyllite, quartzite outcrops in local areas on the hill above and north of the Coronada adit. The bedrock contains quartz veins with pyrite mineralization. The Coronada adit was driven to investigate these quartz veins with depth. It has been reported that the adit stopped short of its objective. Near the northern boundary of the claim above Downey Pass Creek there are numerous quartz boulders and rocks in the glacial drift cover. In this same area there are numerous springs and normal vegetation associated with wet ground.

Stratigraphy

The Cariboo group, which underlies the area of the claims, is composed of clastic rocks with lesser amounts of carbonate rocks. The rocks have been subjected to a low-grade regional metamorphism and intense deformation. The deformation has impressed a marked secondary foliation on most all the clastic rocks and some carbonate rocks. Despite the effects of deformation and regional metamorphism, the rocks still commonly show original bedding and other sedimentary features. Many of the rocks are difficult to name accurately because of their original sedimentary and subsequent metamorphic character. Many clastic rocks of the Cariboo group are composed of poorly sorted sediments of grains much larger than average. It is very difficult to assign a name to this type of rock even if not metamorphosed. Most of the clastic rocks and even some of the limestones are schistose, however, in any one unit the degree of schistosity may vary, depending on structural position. For example, an argillaceous rock may range from an argillite through phyllite to a true schist or graphitic schist as it is traced from an open fold to a tight fold or its proximity to fault structures. In many places along the northerly trending fault zones, as mapped by different geologists, argillites are changed to a very soft and possibly pure graphitic schist. At numerous places along the Last Chance-Nelson Creek fault, as mapped by Stuart Holland in Bulletin 26 and identified by the writer in the field with electromag profiles, argillites were replaced by soft graphitic schist and abundant quartz veins with massive sulphides. The graphitic schists produce text-book conductive anomalies on the electromag

profiles, making the electromag very useful as a tool for identifying major north trending faults.

The thickness of the formations in the Cariboo group cannot be measured directly and estimates are subject to considerable error due to poorness of exposures and the intricacy of structure. In many exposures of bedrock, the bedding can not be distinguished from schistosity with any degree of certainty. The folding is known in general but the details are very rarely recognizable and measurements are liable to include duplications. According to A. Sutherland Brown in Bulletin No. 38, the *thickness in this area is deemed to be less than 1200 metres.*

The age of the Cariboo group is now known to be Early Cambrian and younger. Earlier publications by Bowman, Jonston and Uglow, and George Hanson placed the age of the Cariboo group or series as Pre-Cambrian in age. No fossils have been found in the group in this general area and the age has been assigned on the basis of archaeocyathids and trilobites collected at Turks Nose Mt., Kimball Creek, and other localities within a thick limestone which has been traced into this general area and identified with the Cunningham limestone, which is the basal member of the Cariboo group.

Hydrothermal alteration has had a more severe effect on the various formations of the Cariboo group than the regional metamorphism. The alteration has obliterated all sedimentary structures and also a cleavage that is common in the unaltered limestone. The distribution of the alteration is patchy and in some instances, seems to bear an areal relation to major faults primarily the more persistent northerly trending faults in the area.

The rocks in the immediate area of the claims are argillites, quartzose phyllite, grey to brown micaceous quartzite, slate, and thin lenses of grey limestones of the Snowshoe and Midas Formations of the Cariboo group. In the central portion of the claims, quartz veins up to 2 feet in diameter are fairly abundant in the argillites and quartzites of the Snowshoe Formation. The quartz veins trend generally to the northeast and probably are of the Transverse and Diagonal types as classified by G. Hanson in Bulletin No. 181 of the Geological Survey of Canada. A few strike veins were also noted in this portion of the area.

Structure

The rocks of the Cariboo group within the claim block lie on the northeastern limb of a large northwesterly trending anticline or possible anticlinorium. The antiformal axis, as mapped by most observers, is situated immediately southwest of the claim blocks near the top of Mt. Burns, Mt. Amador and Mt. Nelson, with a N 50°-60° west bearing. The rocks strike northwest and dip to the northeast. In the main, the folding within the area of the claim seems simple, but in some places minor folds can be observed where the dip changes to 45° and some local evidence of overturning to the southwest. Many of the folds in the area have their original stratigraphic order disrupted by shearing, rupture and flowage. Some of the folds are so compressed that the actual texture cannot be recognized. The rocks of the Cariboo group have been folded at least twice. The more intense folding took place before the younger Slide Mountain group was laid down. It is rarely possible to identify the second generation folds in the Cariboo group, due partially to the less intense folding in the youngest folds. Schistosity and cleavage are well developed in the Cariboo group in the area of the claims. The difference in the development of the two features is due primarily to the intensity of folding and mineral composition. The characteristic rocks of the Cariboo group are phyllite and micaceous quartzite.

Faults are very common in the general area of the Yuma Claim. Several fairly large and continuous northerly trending faults have been mapped in the immediate area of the claim. The Lowhee and Rainbow faults were mapped in mine area a few kilometers south of the claim. The Lowhee fault has been projected to the north up the Downey Pass Creek. This projection has been confirmed with electromagnetic work on the EML claims immediately north of the Yuma claim, by the writer. The possible northerly extension of Richfield was also identified to the north on the EML claims. The structural condition in the northern portion of the Yuma claims and the EML claims are very complex due to strong northeast trending faults mapped in outcrop and government publications and in the electromagnetic work on the EML claims by the writer. the strong anomaly recorded on the VLF-EM work on Line 09N on the west end of the line near Martins Creek, may be the result of the strong northeast faulting along the creek.

Mineralization and Origin of Ore Deposits

The earliest quartz mineralization seen in this general area in the Cariboo group, is in the form of narrow bed veins formed mainly or entirely by the replacement of narrow bands of rock. They are known to be early because they are folded with the strata. Other bands of silicified clastic sediments are very similar to these veins but they are clearly silicified rock bands and not quartz veins. They are cut by transverse quartz veins and the silicification shows no relation to them, suggesting that the silicified rock bands are decided earlier than the veins cutting them.

After the formation of the early bed veins and the silicification of some beds, the rocks were subjected to fracturing and the fractures were mineralized with quartz to form the transverse and diagonal veins. The fractures in which the transverse and diagonal veins occur were formed after the rocks were folded and sheared. The shapes and pattern of the fractures indicate that they were formed by compression, tension and also torsion. The wall rock of the veins contains a great deal of coarsely crystalline pyrite. Pyrite cubes occur many feet from any vein also, but a great many examples serve to show that pyrite is more plentiful near veins, therefore there seems little doubt that the pyrite was formed from constituents moving outward from the vein fractures. The transverse and diagonal veins produced the majority of the gold ore in the Cariboo Gold Quartz Mine. The strike and bed veins are not too numerous and so far as known, have produced much lower gold values than the normal pyritic transverse and diagonal veins. Only a few bed veins have been observed. The bed veins are quite thin, composed of quartz and contain no pyrite or gold. Some ore shoots were mined on the strike vein, known as the B.C. Vein. Gold values were lower than in the transverse and diagonal veins. Other strike veins will have to be worked before this type of vein can be called uncommercial.

The other main type of lode gold deposit in the Cariboo group is one formed by the replacement of limestone. The ore is typically a solid mass of fine grained pyrite. This type of deposit was first recognized in the Cariboo in 1933. The largest of this type of deposit was found in the Island Mountain Mine. The presently producing Mosquito Creek Mine produces a great deal of its gold from this type of deposit. The ore in this type is in general, higher in gold values than the transverse

and diagonal veins. The highest gold values are obtained from these massive fine grained pyrite replacement type ore bodies. Gold values as high as 5 ounces per ton are obtained from these massive fine grained pyrite deposits. The ore is massive but commonly contains bands of ore separated by bands of grey ankerite or phyllite. Near the fringes of the ore bodies, ankerite becomes dominant and pyrite becomes more sporadic and coarser grained. There may be some silicification also near the fringes of the ore body with minor amounts of galena, sphalerite, arsenopyrite and scheelite. The gold mineralization is believed to be later than the formation of the quartz veins. The quartz veins are later than the formation of the quartz veins. The quartz veins are later than most of the northerly trending faults because they are concentrated beside or near the northerly faults, they occur in a conjugate set of fractures related to the faults and in some instances, actually occur within the fault. The gold mineralization is believed to be older than the gold bearing Tertiary gravels. This would date the gold mineralization in this area between the Carboniferous and Early Tertiary.

RESULTS OF VLF-EM SURVEY

The field work was carried out under the supervision of Alan Samchek, geological engineer with substantial experience in running VLF-EM surveys in British Columbia, Alberta, Saskatchewan and Manitoba. The raw field data has been plotted on cross section paper and included with the report. Possible faults or contacts have been indicated on the section as well as surface features. The lines were all run using the EM 16 manufactured by Geonics of Toronto. The sharp surface relief near the east boundary of the claim caused by Downey Pass Creek gave considerable trouble and slowed down progress of the survey. The results obtained on each profile are outlined under proper heading below.

Line 01AN

Line 01AN is located 100 meters north of line 01N run previously and reported in the 1986-1987 geophysical report. The line starts at the base line located some 100 meters east of the Downey Pass access road. There is a fairly steep slope up the the base line from the road. West of the road there is a sharp drop off into a low

swampy, wet flat area for some 600 meters and their was a gradual slope to the top at the ridge above the adit and end of the line. This is the general pattern of the terrain on all of the lines run during the survey except that the flat area west of the road decreases in width to the north to some 200 to 300 metres with better definition of the creek. For some unexplained reason the strong anomaly on lines 01 and 02N run earlier on the snow and reports on the 1986 - 1987 assessment work, was not recorded on line 01AN which is located midway between the other lines. A well defined and continuous anomaly was recorded some 450 metres west of the ba se line on line 01AN. As can be seen on the map, the anomaly appears to have a northerly trend. There is no crossover on this anomaly but is a strong minimal or negative in phase response. The strong minimal quadrature or out of phase response is plotted as a dot or circle and is located some 100 metres east of the minimal trend of the in phase response mentioned earlier. This minimal trend of the quadrature is also northerly as shown on the map and follows the Downey Pass Stream further north. The significance of this is not known but could be due to wet surface conditions. The possible fault or contact on line 01AN some 800 metres west of the base line is no doubt associated with the north-northwest trending anomalous zone shown on the base map and recorded on several of the lines run during the field season. The more definite fault or contact mapped some 1,000 meters west of the baseline appears to be associated with a due north-south conductive zone as shown on the base map.

Line 02AN

This east-west line is located 100 metres north of line 02N run earlier in the season and reported on last years assessment report. The well defined anomaly located 225 metres west of the base line is probably related to the strong fault or contact anomaly mapped on line 02N some 100 metres to the south. In all probability this north-northeast trend of the anomaly on lines 0d1N and 02N is related to the strong northeast trending anomaly to the north on lines 05N, 05AN, 06N, 06AN and 07H as shown on the base map. Further west on line 02AN the well defined minimal trends in the in phase and quadrature responses are plotted on the base map. The possible fault or contact anomaly some 450 meters west of the base line appears to be an isolated response. The possible fault or contact anomaly some 700 metres west of the base line, lines up very well with the anomalies on lines either side of line

02AN. The possible anomaly located some 1,000 meters west of the base line also lines up with the north-south trend showing on the base map.

Line 03N

The line is located 100 meters north of line 02AN and 400 meters north of line 01N the first line run on the claim block last season. All of the anomalies recorded on line 02AN to the south were recorded due north of those on line 2AN, giving a local north-south trend to all possible faults or contact anomalies.

Line 03AN

The line is located 100 meters north of line 03N. The correlation of the anomalies on the lines to the north and south of the line indicate a general north-south trend to the faults or contacts recorded on line 03AN.

Line 04N

This line is located 100 meters north of line 03AN, near a sharp trend in the creek and the Downey Pass road. The well defined minimal trend on the quadrature or out of phase response appears to follow the river trend to the east. The minimal in phase response is located some 430 metres west of the base line on a north-south trend and not affected by the trend in the river and consequently may be due to subsurface conditions. The possible fault or contact anomaly some 690 meters west of the base line, corresponds to the north-south trending anomaly shown on the base map. The anomaly at 825 metres west of the base line appears to be associated with a north-northwest trend shown on the base map. The anomaly near 900 metres west of the base line appears to be associated with a north-south trend as shown on the base map.

Line 04AN

This line located 100 metres north of line 04N also shows the strong minimal trend of the quadrature on out-of-phase response to correspond to the river or saturated surface conditions. The pronounced minimal response on the in phase plot is due

north of the response on line 04N to the south. Other anomalies on the line extend the trends described earlier to the north or north-northwest.

Line 05N

This line located 100 metres north of line 04AN, recorded a very strong well defined anomaly 150 meters west of the base line. This anomaly is located approximately 100 meters east of Downey pass Creek along a surface fault identified by government reports and shown on the base map. All of the lines north of line 05N recorded this same strong anomaly with a north-northeast trend parallel to the mapped fault. There is not much questions that the fault is represented by this strong and continuous anomaly on the electromag lines and this area warrants further physical exploration work in an effort to identify possible quartz, pyrite and gold mineralization with depth.

Line 05AN

Line 05AN is located 100 meters north of line 05N and also records the strong anomaly some 125 meters west of the base line in the area of the surface fault. Other anomalies recorded further west on the line line-up very well with the trends established on lines to the north and south of the line. The strong minimal or negative response of the quadrature falls right in the creek bed as shown on the base map.

Line 06N

Again on this line located 100 metres to the north the strong anomaly corresponding to the fault was recorded some 100 metres west of the base line. The strong minimal quadrature was recorded in the Downey Pass Creek bed. The other parallel anomalies recorded further west of the base line lined up very well with anomaly trends north and south of the line as shown on the base map.

Line 06AN

The strong anomaly near the fault zone some 100 metres west of the base line was recorded on this line also. The minimal quadrature was also recorded in the stream bed some 100 metres west of the fault anomaly. Other anomalies near 500 and 600 meters west of the base establish a northwest trend in this area. This northwest trend extends from line 05N through line 07N, the furthest north line run this season. This northwest trend to the anomalies from line 05N to 07N is in contrast to the north-south, south of line 05N.

Line 07N

This line is located 100 meters north of line 06AN and 200 meters south of the northern claim boundary. This is the furthest north line run during the field season. The strong anomaly in the area of the fault was recorded on the line some 60 metres west of the base line near the Downey Pass road. Other anomalies west of the base line confirm the northwest trend identified on other lines.

CONCLUSIONS

The electromagnetic data to date has outlined some very interesting and potential trends. The strong and continuous anomaly recorded on the electromag lines in the northeast portion of the claim block corresponds very well with a fault mapped in the same area by government publications as shown on the enclosed base map. This could very well be the northern extension of the Lowhee Fault identified in the underground workings of the Cariboo Gold Quartz Mine and surface outcrops to the south of the Yuma claim block. The source of the anomaly on the electromag lines varies from 200 to 600 feet below the surface. The Lowhee Fault to the south is almost vertical. Using this data the source of the electromag anomaly should be explored with the diamond drill in an effort to identify possible quartz pyrite and gold mineralization with depth.

The continuous and fairly strong anomaly trends some 400 to 700 meters west of the base line should be prospected with surface exploration trenching and testing

for quartz veins with possible gold mineralization. The side hill in this general area contains numerous quartz boulders with abundant iron oxide or limonite staining. Individual anomaly trends in the northeast portion of the claim block should be explored with trenching or possible shallow diamond or percussion drilling.

RECOMMENDATIONS

Additional exploration work in the form of trenching, shallow-diamond or percussion drilling together with deeper diamond drilling to explore anomalies along the strong north-northeast fault mapped in the eastern portion of the claim block.

Respectfully submitted,

Wm. Howard Myers
Geological-Geophysical Consultant

May 4, 1988

APPENDIX

BIBLIOGRAPHY

Geological Survey of Canada Department of Mines

Memoir 181, 1935, G. Hanson
Bulletin 149, 1926, Johnson and Unglow
Paper 72-35, 1973, J.R. Campbell, E.H. Mountjoy and F.G. Young
Annual Report 1887-88, V.III Amos Brown, 1889
Map 335A Willow River Sheet (west half), G. Hanson
Map 336A Willow River Sheet (east half), G. Hanson
Bulletin, 280, R.W. Boyle, 1979. "The Geochemistry of Gold and its Deposits."
Economic Geology Report 31, 1977, "Geophysics and Geochemistry in the Search for Metallic Ores"

British Columbia, Department of Mines

Bulletin No. 26, 1948, Stuart S. Holland
Bulletin No. 38, 1957, A. Southerland-Brown
Annual Report, 1967, pp. 459-460, A. Sutherland-Brown

Assessment Report

Geophysical Report (VLF-EM) Electromag Survey, 1987 by Wm Howard Myes, P.Eng., P.Geol., Geological-Geophysical Consultant, Vancouver, B.C.

CERTIFICATE

I, William Howard Myers, do hereby certify that I am an independent geological-geophysical consultant with offices at Suite #814 - 602 West Hastings Street, Vancouver, British Columbia, V6B 1P3. I have been actively engaged in my profession as an independent consultant in both oil and mining since 1952. I am a professional geologist, P.Geol., #16704 of the Association of Professional Engineers, Geologists and Geophysicists of Alberta. I am also a member P.Eng., #14056, of the Professional Engineers of British Columbia. I now hold a Life Membership in both Societies.

I graduated from Fresno State College, Fresno, California in 1939 with high honors and a B.Sc. degree in Geology. I did graduate work at Stanford University, Stanford California for M.Sc. degree in Geology, 1939-1941. After graduating I spent three years with the U.S. Geological Survey as field geologist and eleven years in the field of geophysical exploration for oil and minerals.

During the past 24 years, I have spent the majority of my time in the exploration for both placer and lode gold in the Cariboo Area of British Columbia. In the past five years, I have carried out extensive geophysical surveys and research programmes for gold exploration in the Cariboo Area of British Columbia. Much of the work involved the techniques recommended by R.W. Boyle in Bulletin 280 of the Geological Survey of Canada.

I was in the Wells-Barkerville area during the survey and supervised the field work during the period April through June, 1987. The report was prepared in April, 1988.

The published maps and reports used in the preparation of the report are tabulated in the Appendix of the report.

Wm. Howard Myers, P.Eng. (B.C.)
P.Geol. (Alta)
Geological-Geophysical Consultant
Vancouver, B.C.

May, 1988

COST ANALYSIS FOR 1987-88 FIELD WORK ON THE YUMA CLAIM

Daily costs for VLF-EM Field Work

1 Party Chief Alan Samchek - geological engineer	
engineer	$ 125.00/day
helper	75.00/day
truck rental	25.00/day
EM-16 instrument rental	25.00/day
subsistence 2 men @ $50.00/day	100.00/day
misc. expenses (flagging saw - thread etc.)	25.00/day
Total costs per day	**$ 375.00/day**

Field Work

10 days in field during period April 1 to June 30, 1987 weather and other commitments during period	
10 days @ $375/day	$ 3,750.00

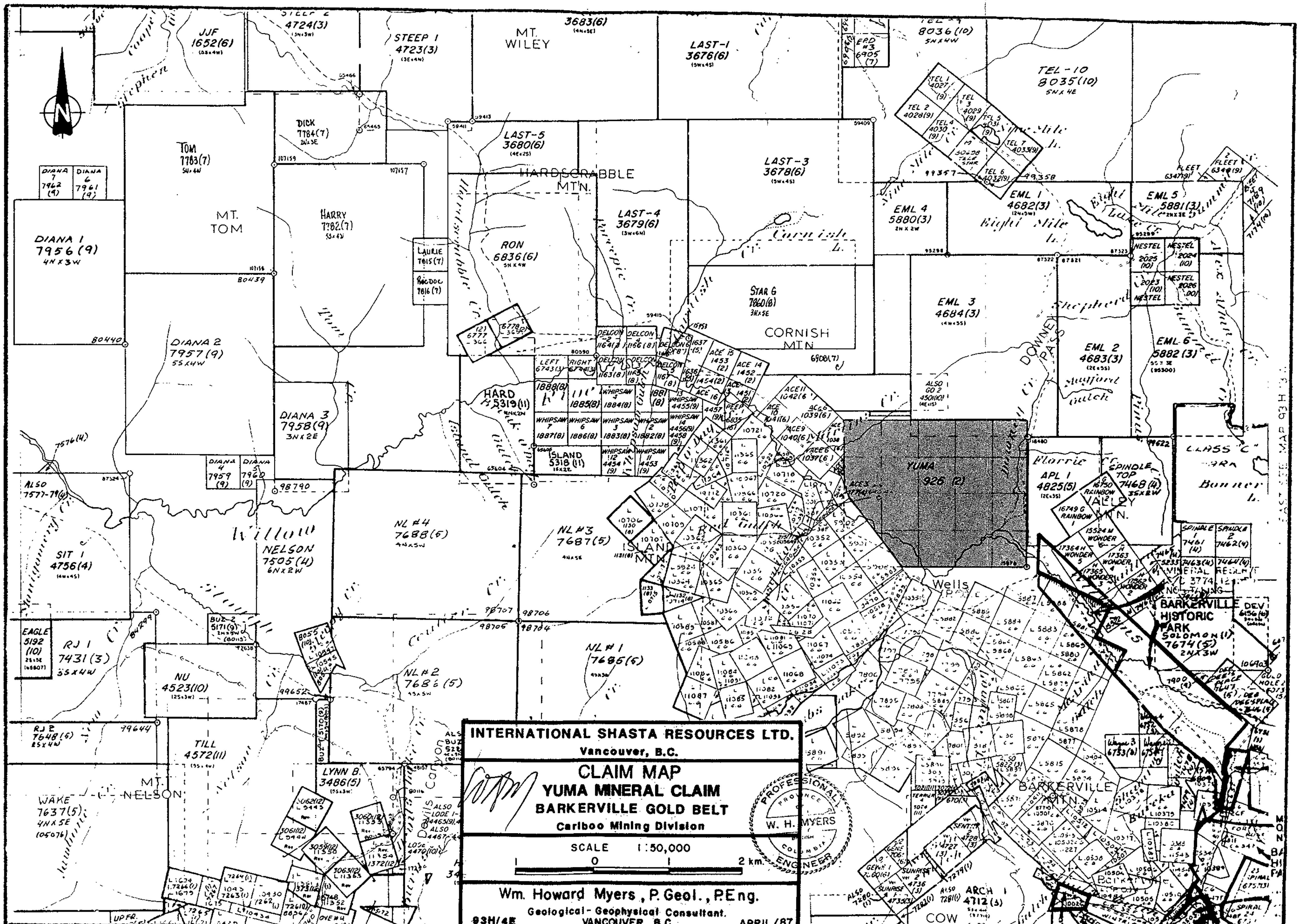
Report

½ day plotting @ $250/day	125.00
report and supervision, Wm Howard Myers, P.Eng., 2 days J@ $250/day	500.00
Typing and printing report	*150.00*
Total Costs of Survey	**$ 4,525.00**

8.7 km of Line	
Cost/km including report	$ 520.11
Line run per day	.87 km

Wm. Howard Myers, P.Eng., P.Geol.
Consultant

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
W. H. MYERS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2 km.
Wm. Howard Myers, P.Geol., P.Eng.
Geological - Geophysical Consultant
VANCOUVER, B.C.
93H/4E
APRIL/87
PROFESSIONAL ENGINEER
W. H. MYERS
YUMA
926 (2)
MT. WILEY
MT. TOM
HARDSCRABBLE MTN.
CORNISH MTN
ISLAND MTN
Wells
BARKERVILLE HISTORIC PARK
BARKERVILLE MTN.
MT. NELSON
COW MTN
DIANA 1
7956 (9)
DIANA 2
7957 (9)
DIANA 3
7958 (9)
TOM
7783 (7)
HARRY
7782 (7)
DICK
7784 (7)
JJF
1652 (6)
STEEP 1
4723 (3)
LAST-1
3676 (6)
LAST-3
3678 (6)
LAST-4
3679 (6)
LAST-5
3680 (6)
RON
6836 (6)
STAR G
7860 (8)
TEL-10
8035 (10)
EML 1
4682 (3)
EML 2
4683 (3)
EML 3
4684 (3)
EML 4
5880 (3)
EML 5
5881 (3)
EML 6
5882 (3)
APL 1
4825 (5)
NL #1
7685 (5)
NL #3
7687 (5)
NL #4
7688 (5)
NELSON
7505 (4)
SIT 1
4756 (4)
RJ 1
7431 (3)
NU
4523 (10)
TILL
4572 (11)
WAKE
7637 (5)
LYNN B.
3486 (5)
ARCH 1
4712 (5)
SOLOMON (1)
7674 (5)

Line 1A North

1+200W 1+100W 1+000W 0+900W 0+800W 0+700W 0+600W 0+500W 0+400W 0+300W

80%
60%
40%
20%
0%
20%
40%

YUMA CLAIM GROUP
LINE 1A NORTH
VLF-EM SURVEY

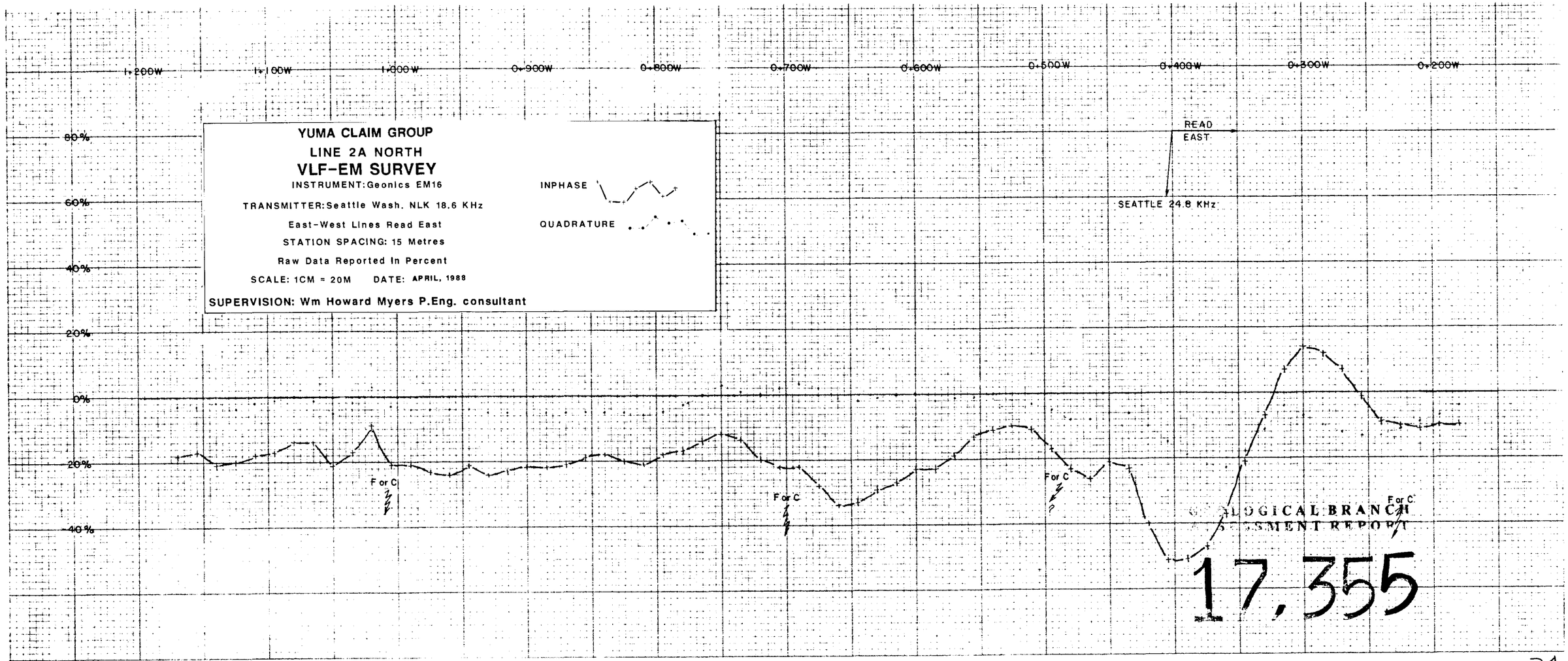
INSTRUMENT: Geonics EM16
TRANSMITTER: Seattle Wash. NLK 18.6 KHz
East-West Lines Read East
STATION SPACING: 15 Metres
Raw Data Reported In Percent
SCALE: 1CM = 20M DATE: APRIL, 1988

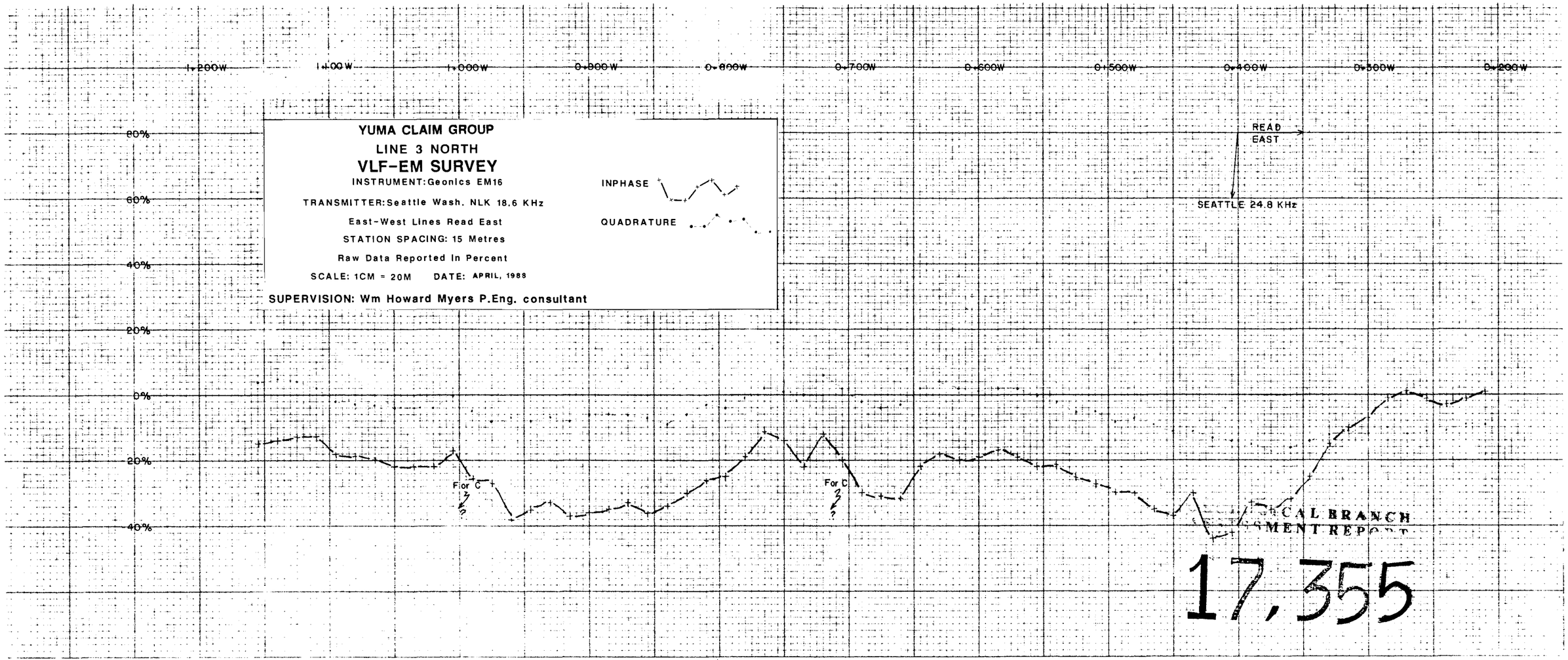
SUPERVISION: Wm Howard Myers P.Eng. consultant

INPHASE
QUADRATURE

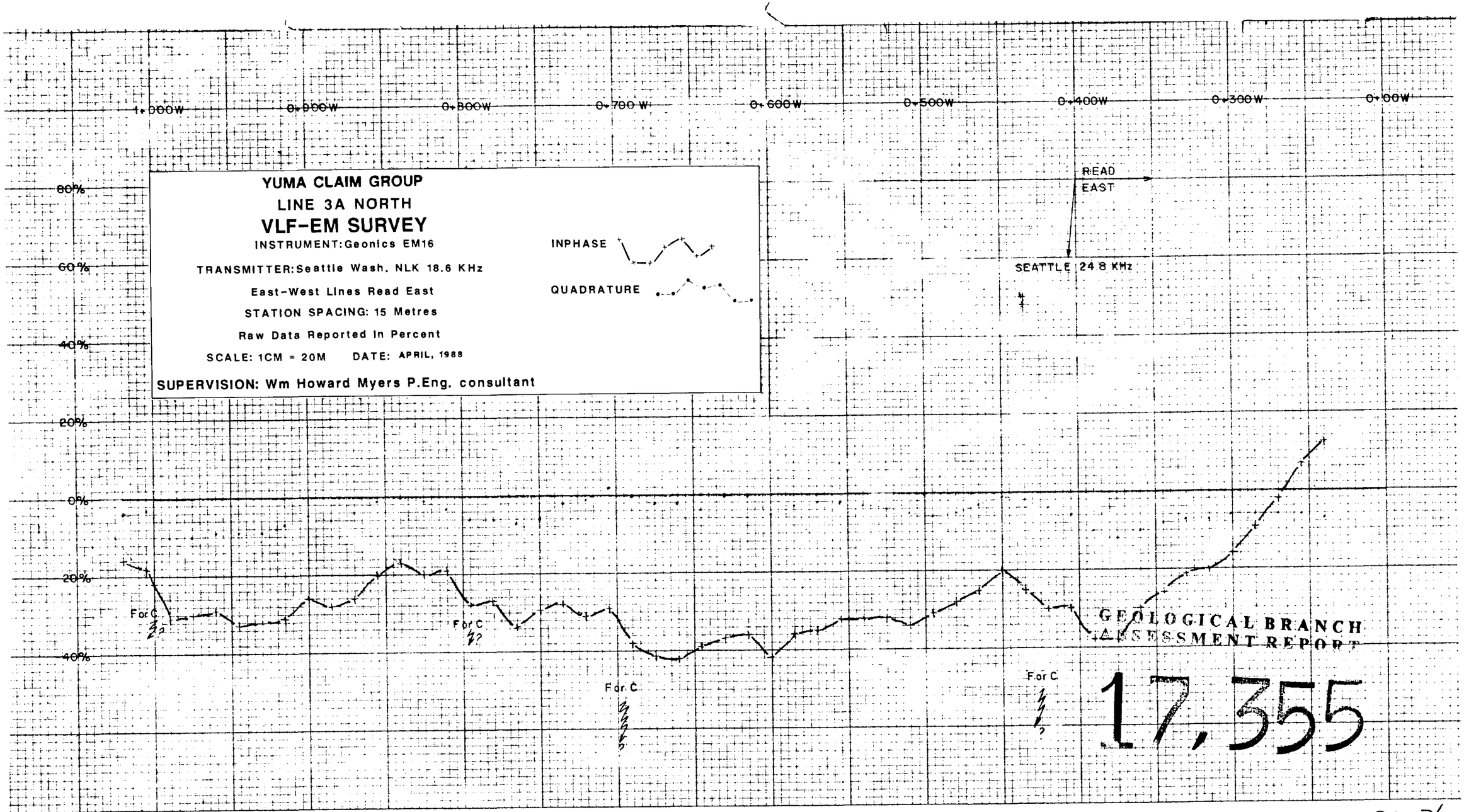
READ EAST
SEATTLE 24.8 KHz

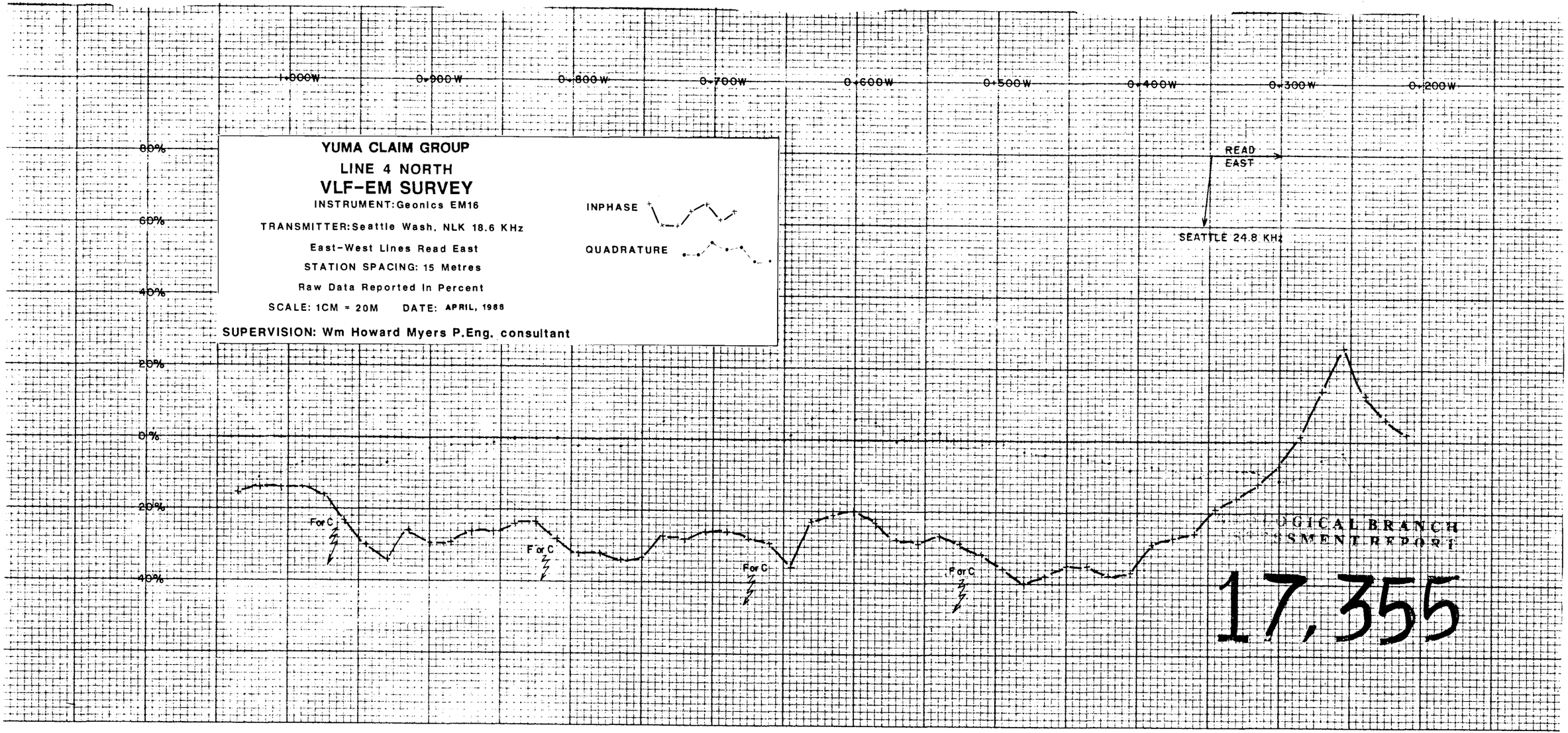
For C
For C
For C

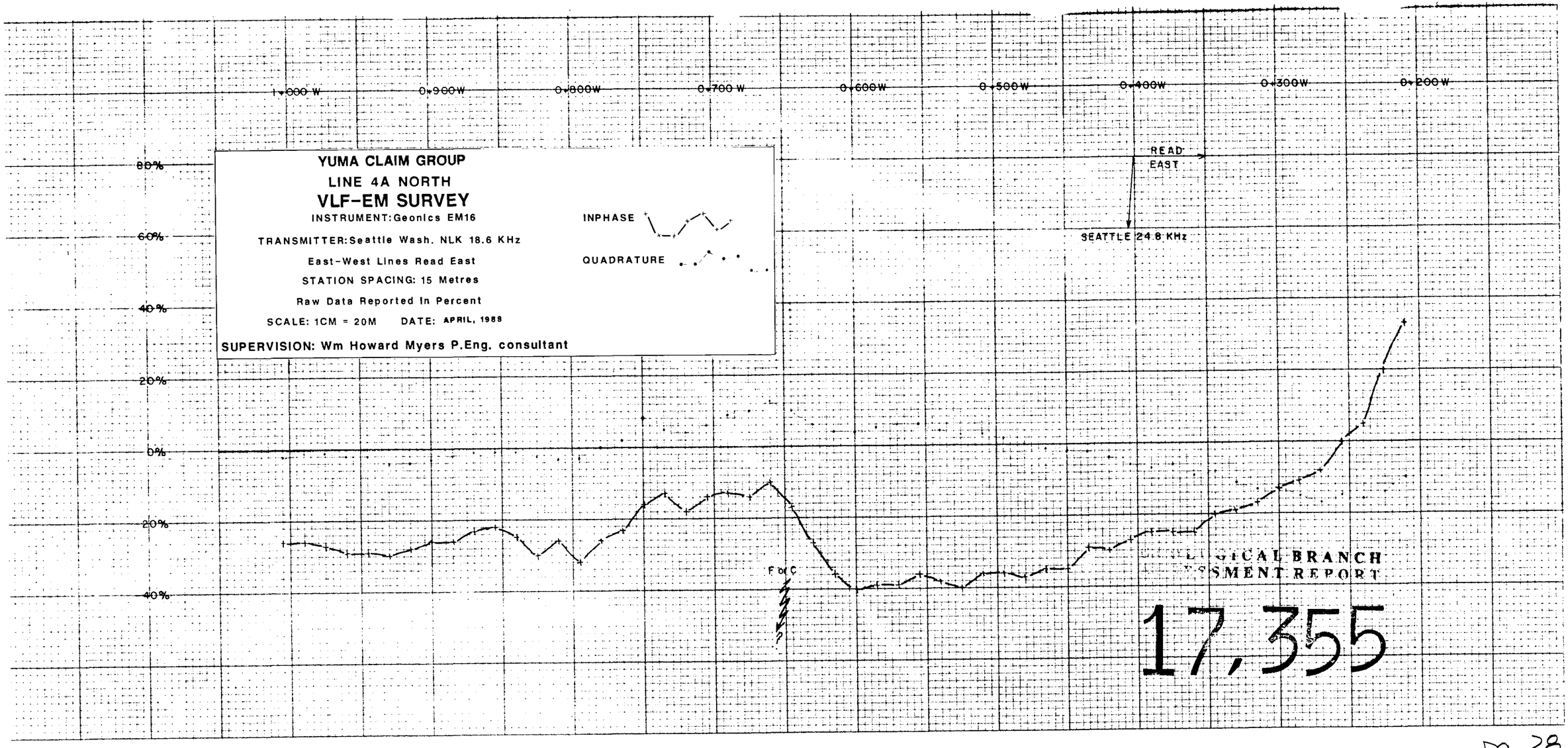


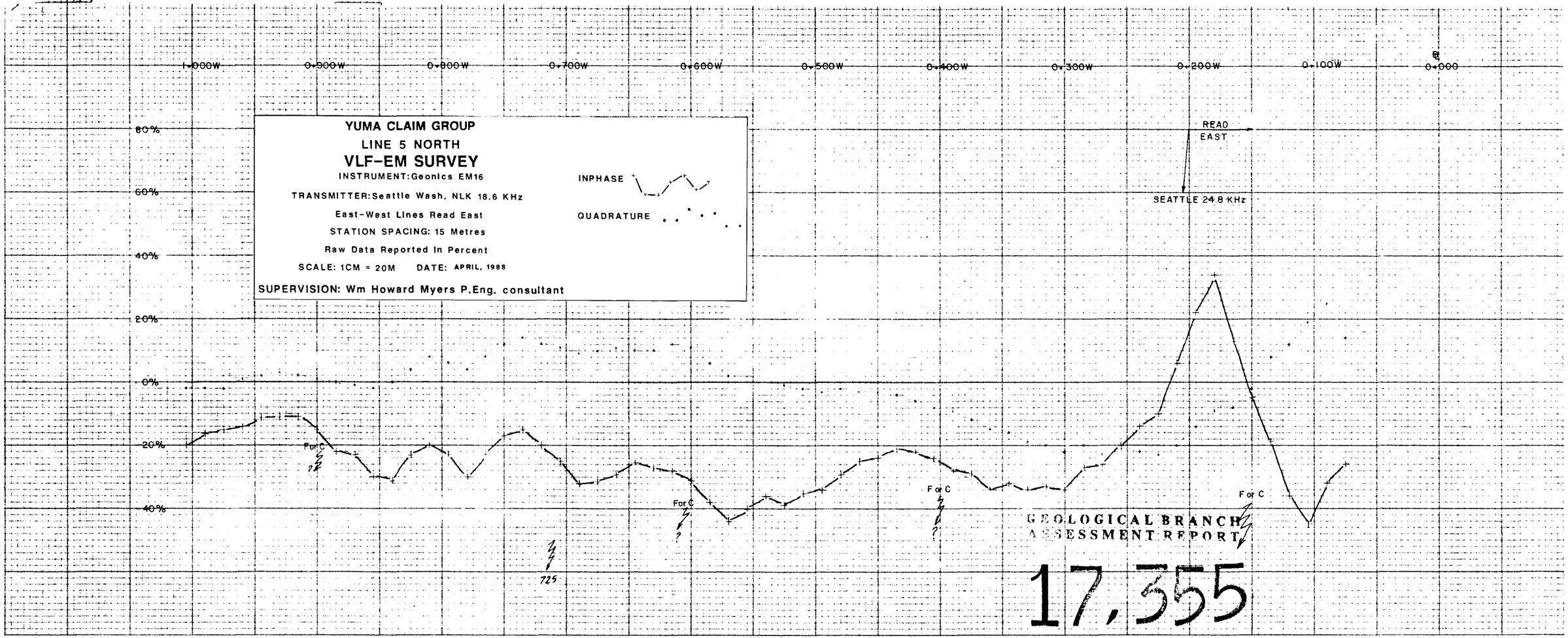


89-25


1+000W
0+900W
0+800W
0+700W
0+600W
0+500W
0+400W
0+300W
0+00W
80%
60%
40%
20%
0%
20%
40%
READ
EAST
SEATTLE 24.8 KHz
YUMA CLAIM GROUP
LINE 3A NORTH
VLF-EM SURVEY
INSTRUMENT: Geonics EM16
TRANSMITTER: Seattle Wash. NLK 18.6 KHz
East-West Lines Read East
STATION SPACING: 15 Metres
Raw Data Reported In Percent
SCALE: 1CM = 20M DATE: APRIL, 1988
SUPERVISION: Wm Howard Myers P.Eng. consultant
INPHASE
QUADRATURE
For C
For C
For C
For C
GEOLOGICAL BRANCH
ASSESSMENT REPORT
17,355

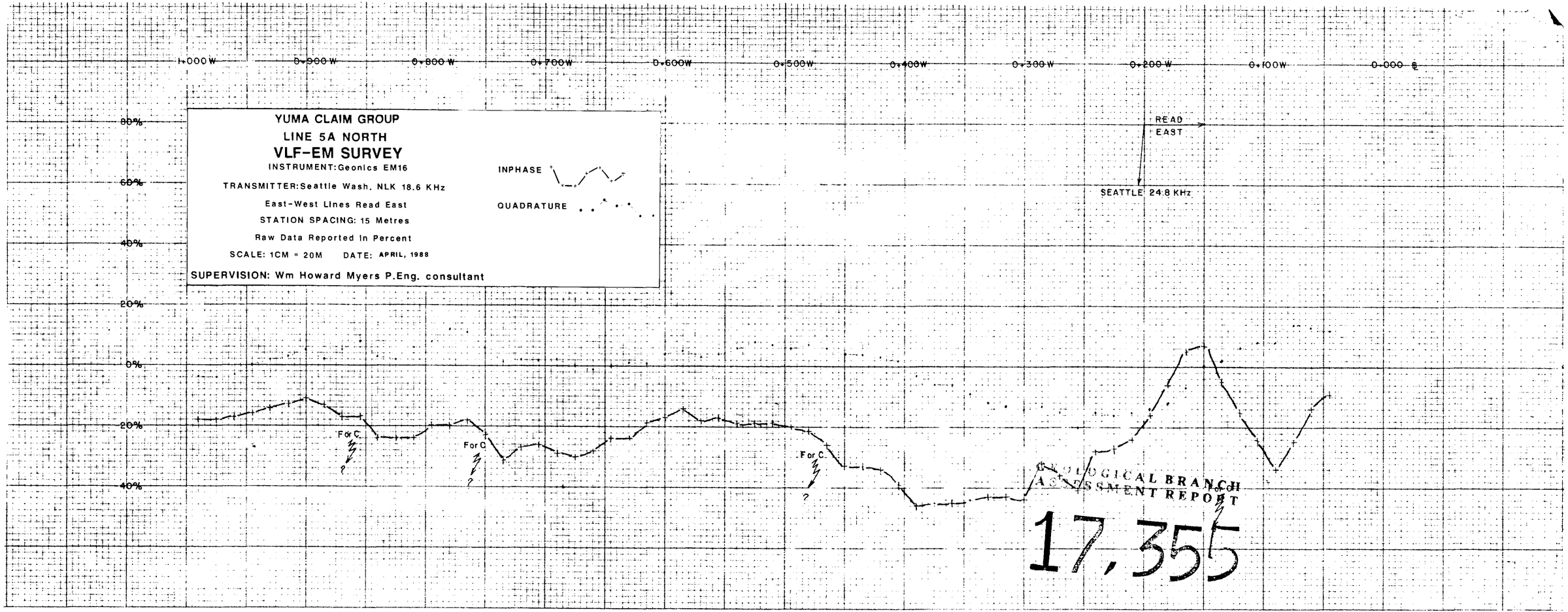


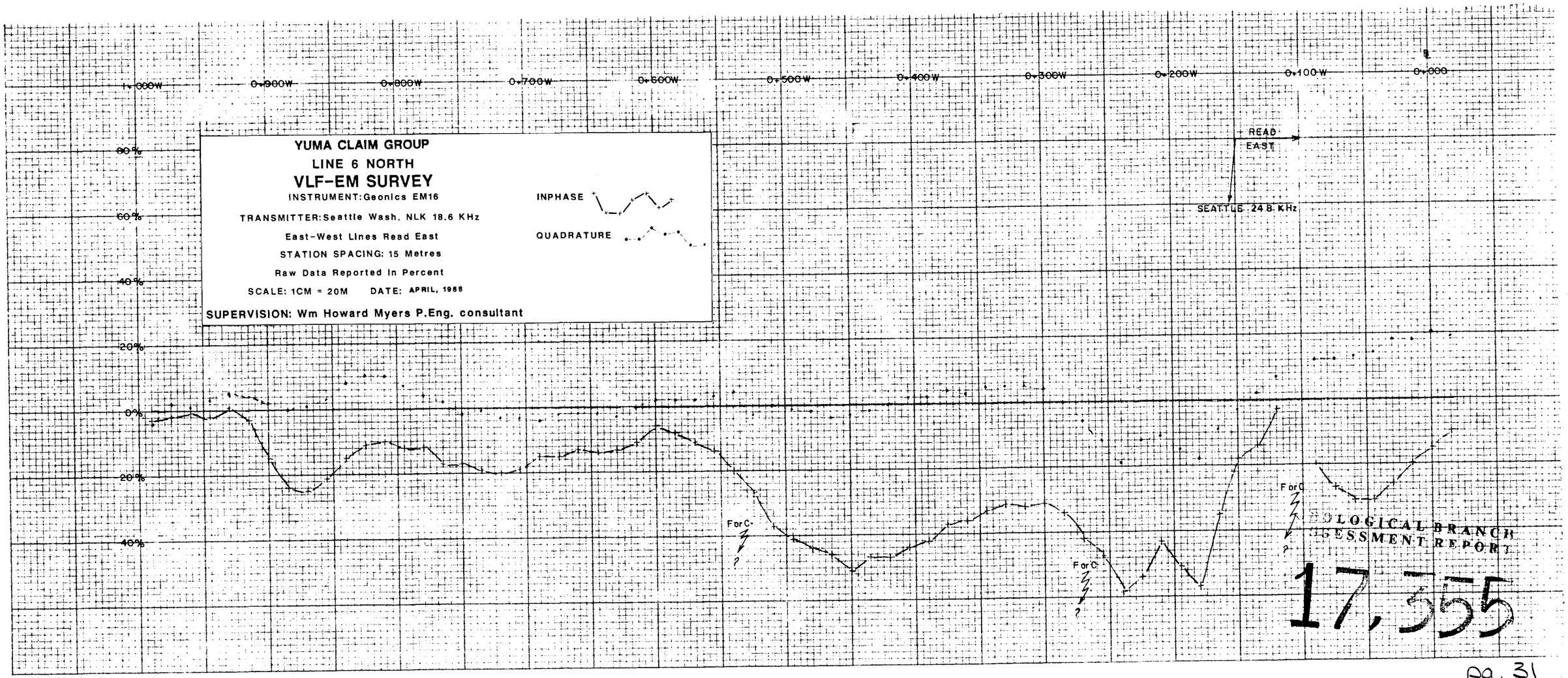


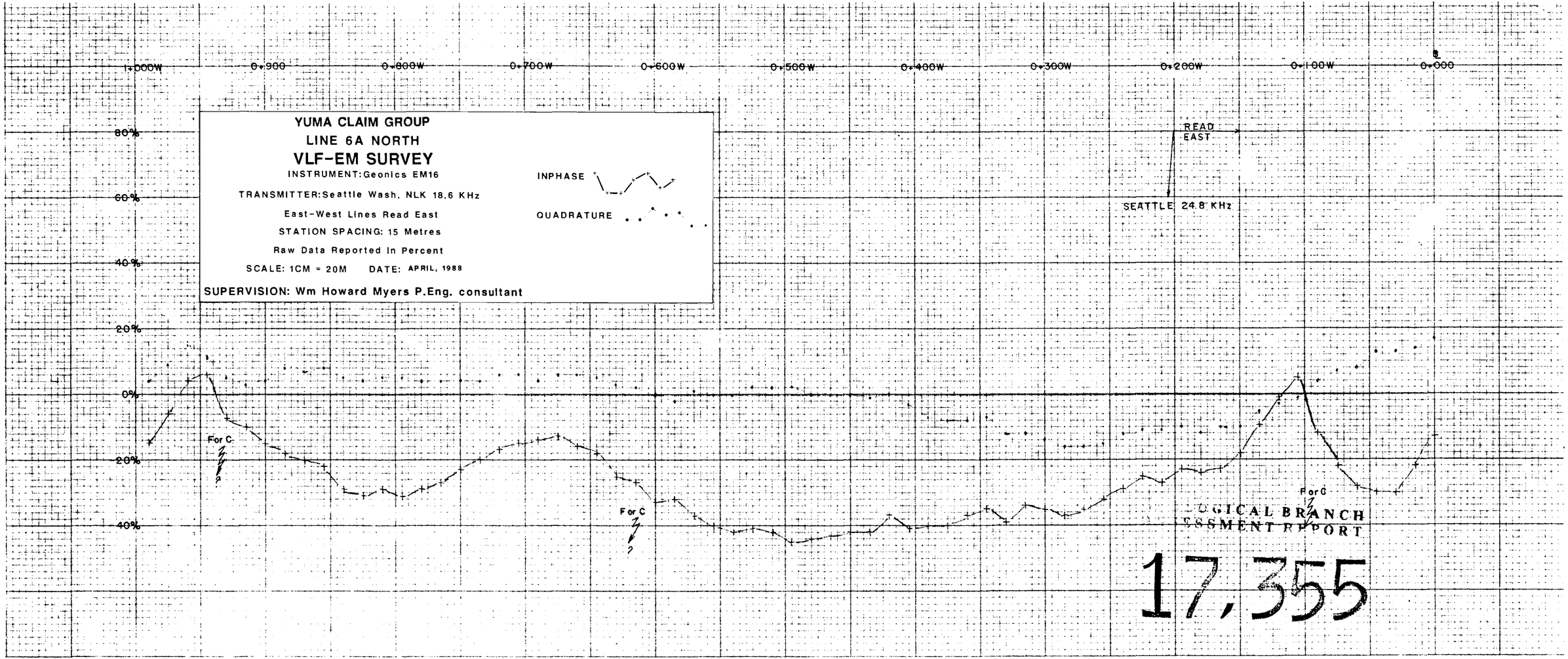


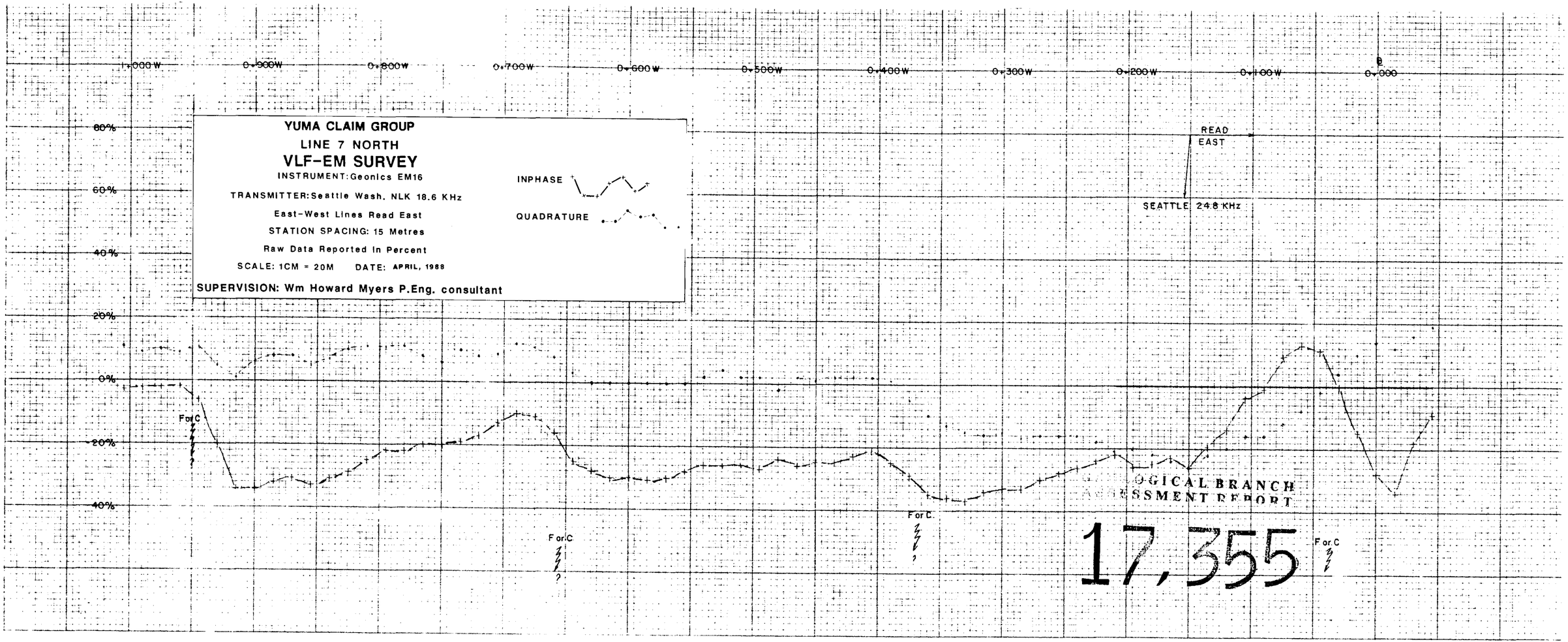
GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,355


1+000W
0+900W
0+800W
0+700W
0+600W
0+500W
0+400W
0+300W
0+200W
0+100W
0+000
80%
60%
40%
20%
0%
20%
40%
YUMA CLAIM GROUP
LINE 5A NORTH
VLF-EM SURVEY
INSTRUMENT:Geonics EM16
TRANSMITTER:Seattle Wash. NLK 18.6 KHz
East-West Lines Read East
STATION SPACING: 15 Metres
Raw Data Reported In Percent
SCALE: 1CM = 20M DATE: APRIL, 1988
SUPERVISION: Wm Howard Myers P.Eng. consultant
INPHASE
QUADRATURE
READ
EAST
SEATTLE 24.8 KHz
For C.
For C.
For C.
GEOLOGICAL BRANCH
ASSESSMENT REPORT
17,355






1+000W
0+900W
0+800W
0+700W
0+600W
0+500W
0+400W
0+300W
0+200W
0+100W
0+000
80%
60%
40%
20%
0%
20%
40%
YUMA CLAIM GROUP
LINE 7 NORTH
VLF-EM SURVEY
INSTRUMENT: Geonics EM16
TRANSMITTER: Seattle Wash. NLK 18.6 KHz
East-West Lines Read East
STATION SPACING: 15 Metres
Raw Data Reported In Percent
SCALE: 1CM = 20M DATE: APRIL, 1988
SUPERVISION: Wm Howard Myers P.Eng. consultant
INPHASE
QUADRATURE
READ
EAST
SEATTLE 24.8 KHz
For C
For C
For C
For C
OGICAL BRANCH
SSMENT REPORT
17,355

CORNISH MTN

SHEPHERD CREEK

WILLOW RIVER

MARTINS CREEK

YUMA CLAIM

926 (2)

L 09N
L 08N
L 07N
L 06AN
L 06N
L 05AN
L 05N
L 04AN
L 04N
L 03AN
L 03N
L 02A
L 02N
L 01AN
L 01N

BASELINE

?

CARIBOO - CORONADA ADIT

VALLEY MTN

MOSQUITO GULCH

MOSQUITO CREEK MINE

WELLS

HWY 26

WILLIAMS CREEK

ISLAND MTN ADIT

MOSQUITO FAULT

JACK OF CLUBS FAULT

CARIBOO GOLD QUARTZ ADIT

LOWHEE CREEK

LOWHEE FAULT

RAINBOW FAULT

LOWHEE SPLIT FAULT (INTERSECTION)

HWY 26 QUESNEL - BARKERVILLE

JACK OF CLUBS LAKE

LEGEND

- VLF-EM PROFILES 1986-7 SEASON
- FAULTS FROM PUIBLISHED REPORTS IN BIBLIOGRAPHY (INFERRED / OBSERVED)
- FAULTS OR CONTACTS FROM VLF-EM PROFILES DEFINITE, POSSIBLE
- POSSIBLE TRENDS ON VLF-EM PROFILES
- MINIMUM QUADRATURE
- L01N 1987 VLF-EM LINES

INTERNATIONAL SHASTA RESOURCES LTD.

YUMA CLAIM

WELLS-BARKERVILLE AREA, CARIBOO MINING DIVISION, BRITISH COLUMBIA

VLF-EM PROFILE LOCATION MAP

1987 GROUND VLF-EM SURVEY

SCALE 1:10,000

0 0.5 1 KM

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Consultant, Vancouver, British Columbia

N.T.S. 93H/4E

NOTE: This map is from an uncontrolled laid down mosaic using aerial photographs by Wm Howard Myers P.Eng.

DRAWN: WHM./dw

DATE: APRIL 1987