ARIS SUMMARY SHEET

District Geologist, Smithers — Off Confidential: 92.03.12

ASSESSMENT REPORT 21162 — MINING DIVISION: Atlin

PROPERTY: Will
LOCATION: LAT 59 11 00 LONG 134 16 00
UTM 08 6560115 541721
NTS 104M01E
CLAIM(S): NA 3856,NA 3858,NA 4058,NA 4258,NA 4260,NA 4262
OPERATOR(S): Carmac Res.
AUTHOR(S): Visagie, D.
REPORT YEAR: 1991, 171 Pages
COMMODITIES
SEARCHED FOR: Gold,Silver,Lead,Zinc
KEYWORDS: Permian,Schists,Sericite schists,Gneisses,Limestones,Pods
Massive sulphides,Lenses,Galena,Sphalerite,Pyrite,Pyrrhotite
Arsenopyrite,Stibnite
WORK
DONE: Geological,Geochemical,Geophysical,Physical
EMGR 5.0 km
GEOL 8.0 ha
Map(s) - 1; Scale(s) - 1:1000
MAGG 5.0 km
ROCK 365 sample(s) ;ME
Map(s) - 1; Scale(s) - 1:10 000
TREN 145.0 m 35 trench(es)
MI[illegible]: 104M 031

LOG NO: March 25/91 RD.
ACTION:

FILE NO:

GEOCHEMICAL AND GEOLOGICAL REPORT

ON THE

WILLISON CREEK CLAIMS

Atlin Mining Division

NTS: 104M/1
Latitude: 59°11'N
Longitude: 134°16'W

SUB-RECORDER
RECEIVED
MAR 11 1991
M.R. #
VANCOUVER, B.C.

Operator: Carmac Resources Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Work Conducted: July 26 to August 25, 1990

Report By: D.A. Visagie
February 13, 1991

W91-410

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,162

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF FIGURES (Con't)

The following figures are in folders in the back of this report.

LIST OF TABLES

APPENDICES

Distribution:
Dave - 1
Gov't - 2
File - 1
Kim Hudson - 1

W91-410

1.0 INTRODUCTION

The Willison property is located approximately 40 km southwest of Atlin, B.C. Mapping has shown the property to be underlain by metamorphosed Pre-Permian sediments of the Nisling Terrane. Prospecting has located two styles of mineralization: lenses and pods of massive galena and sphalerite with pyrite and pyrrhotite in which gold and silver values occur and galena, sphalerite, arsenopyrite and pyrite quartz veins with associated gold and silver. Carmac personnel spent 31 days representing 72 man-days of labour between July 26 and August 25 1990 evaluating the property. A total of 344 rock chip and three silt samples were collected and sent for analysis.

2.0 LOCATION AND ACCESS (Figures 1 & 2)

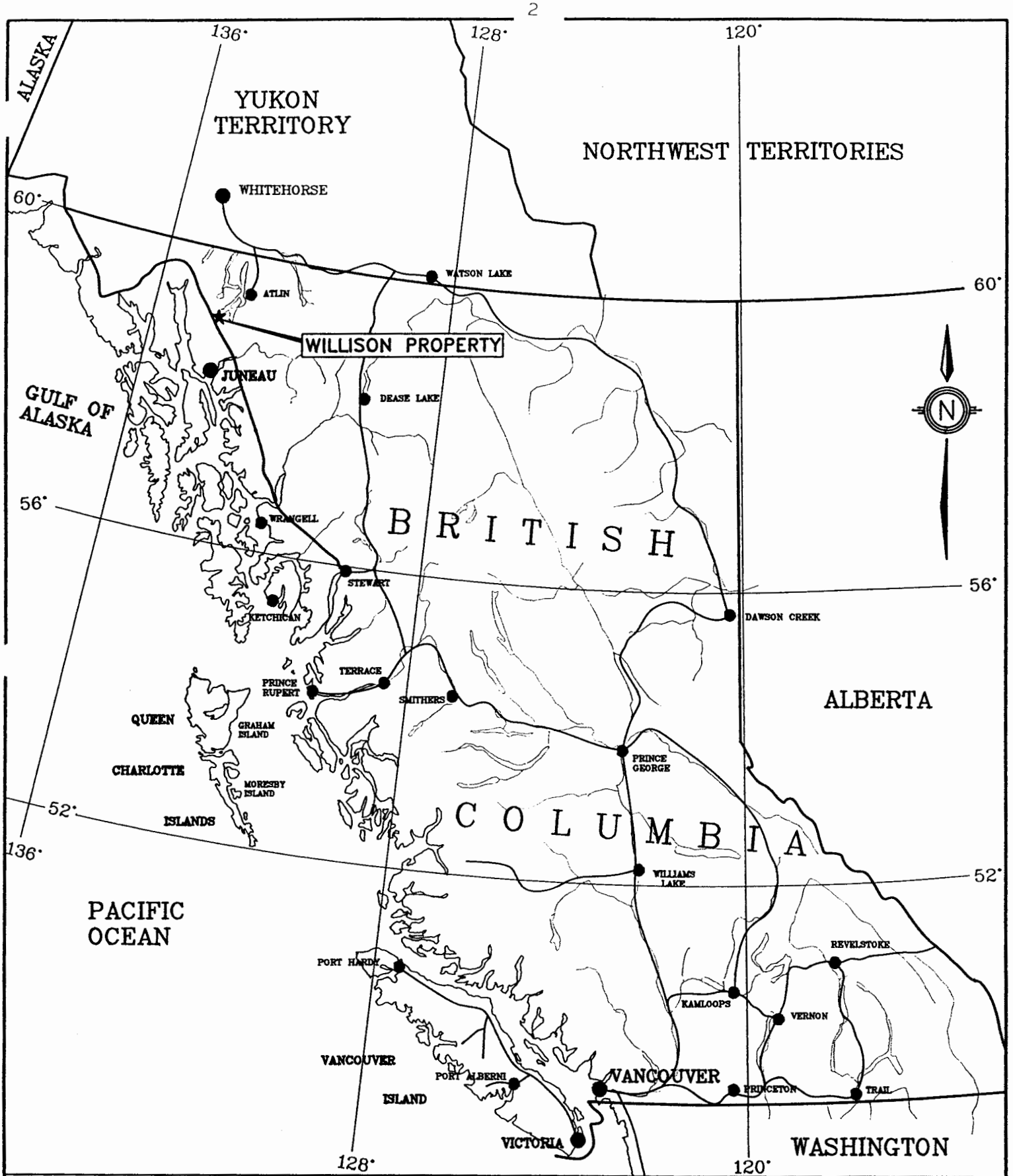
The property is located near the headwaters ow Willison Creek which drains northerly from glacial coast range headlands into the southwest end of Atlin Lake in north central B.C. (Figures 1 & 2). It occurs within NTS map sheet 104M/1 with geographic coordinates: latitude 59°11'N and longitude 134°16'W. UTM coordinates (which designate its number description) of the southwest corner of the property are 6556000m N, 553800m E.

Access is by helicopter from Atlin, 50 km to the northeast. For the purposes of mobilization, freight was mobilized to Willison Bay by float plane, 13 km to the southwest of the showing then flown by helicopter.

3.0 TOPOGRAPHY, VEGETATION AND CLIMATE

Elevations on the property range rom 900 m (3248 ft) near Willison Creek to about 2200 m further south and west from which point the ice laden Chilkoot Range and its numerous glaciers gradually reach elevations of 2400 m along the highland marking the Alaska boundary.

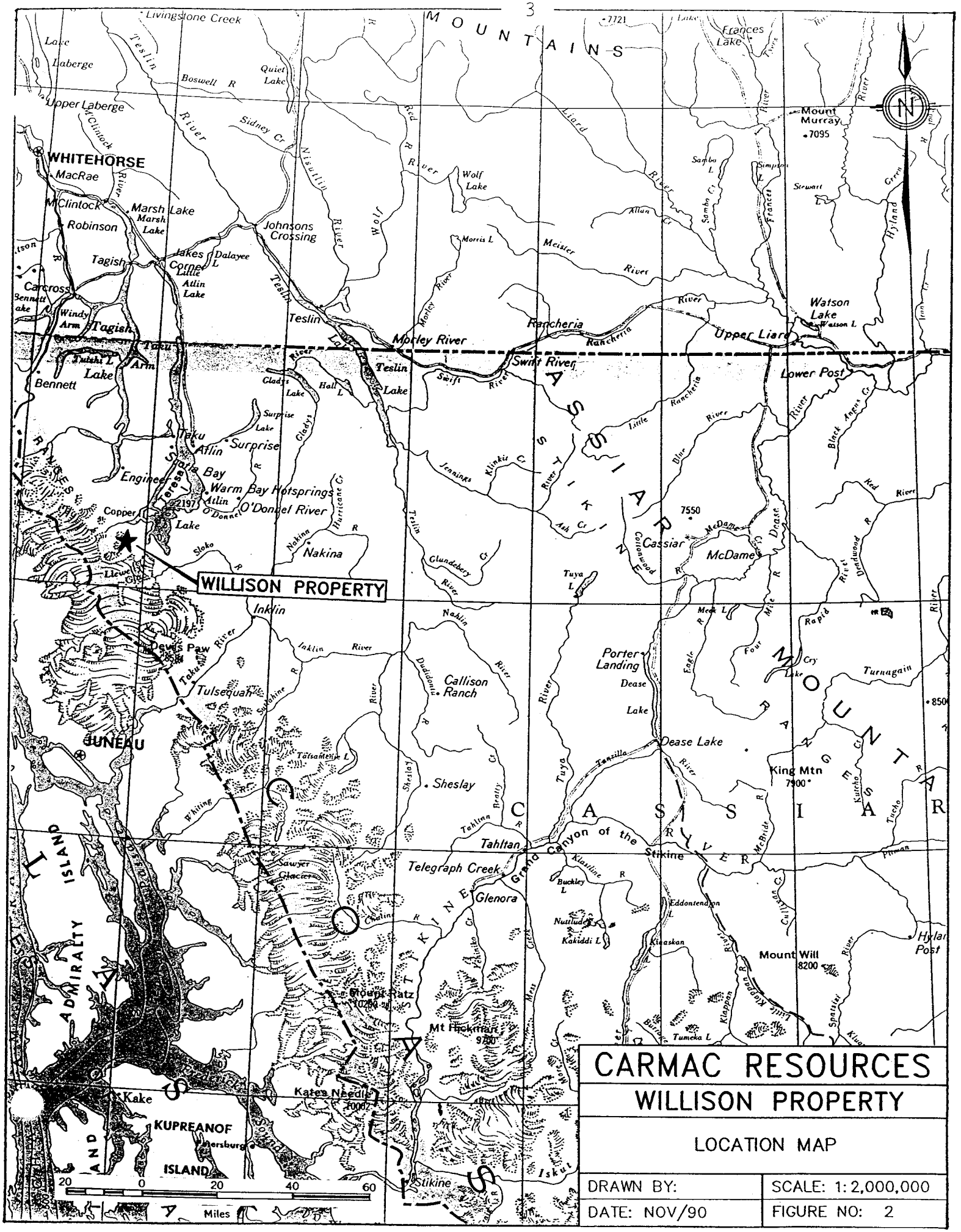
Vegetation is limited to a few trees (northern spruce, etc.) below the 1200 m contour. Snowfall is heavy and the maximum effective field season is from late May to late October.



CARMAC RESOURCES

WILLISON PROPERTY LOCATION MAP

DRAWN BY: T.K.	FIGURE NO: 1
DATE: DEC/1990	SCALE: 1:10,000



CARMAC RESOURCES

WILLISON PROPERTY

LOCATION MAP

DRAWN BY:	SCALE: 1:2,000,000
DATE: NOV/90	FIGURE NO: 2

4.0 CLAIM STATUS (Figure 3)

The property was optioned from Kim Hudson who acquired it by "Application" a new staking method introduced by the B.C. Government for limited areas in B.C.

The claims are "paper staked" in 16 unit blocks which are assigned a grid number. The claims are not given a name and no claim posts exist on the property. The pertinent claim information is listed below:

Claim Number	Recording Date	Record Number
NA 4262	April 17, 1989	3879
NA 4260	April 17, 1989	3880
NA 4258	April 17, 1989	3870
NA 4058	July 10, 1989	3875
NA 4056	July 10, 1989	3871
NA 3856	July 10, 1989	3881
NA 3858	August 29, 1990	4307

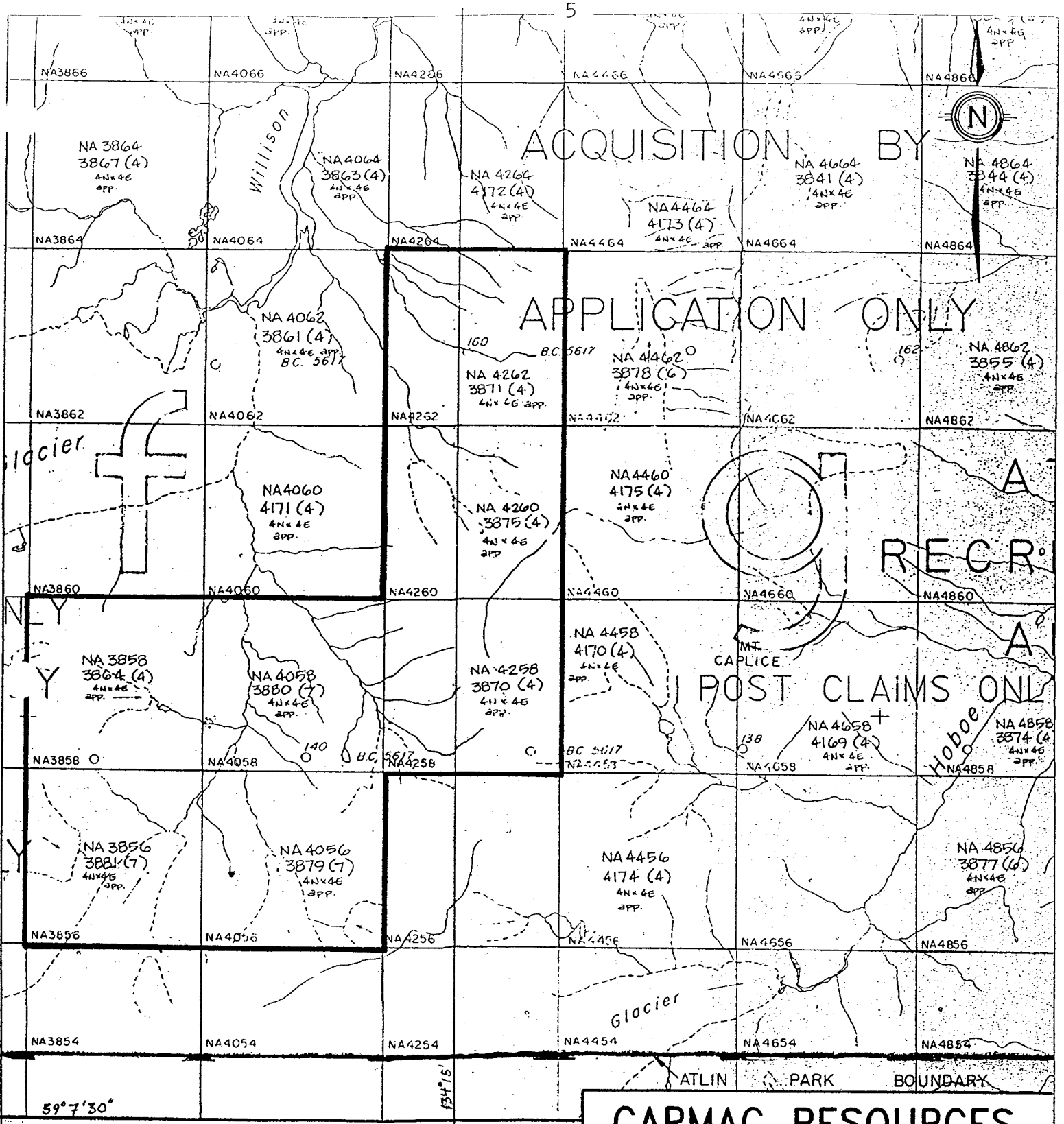
All claims occur within the Atlin Mining Division. Carmac Resources Ltd. is presently acting as the operator.

5.0 EXPLORATION HISTORY (Figure 4)

A summary of the exploration work carried out in the Willison Bay area is provided in Table 2. The earliest recorded prospecting in the area was completed by the Laverdiere Brothers between 1899 and 1918 resulting in the discovery of skarn mineralization along Hoboe Creek. Subsequent trenching and drifting showed skarn zones up to 55 ft wide to contain between 1.7% and 6% Cu. Porphyry copper-molybdenum mineralization also occurs in the altered monzonite along the western skarn contact.

Over the years the property has been examined by Conwest Ltd., Bethlehem Copper Ltd., Cominco Ltd., Centex Mines Ltd., Rio Platas Mines and Whitehorse Copper Mines Ltd. who have completed programs including geophysical surveys, mapping and drilling. A total of 100 line miles of aeromagnetic survey was carried out over Hoboe Creek south along the creek to the glacier. As a result two magnetic lows were identified as possible porphyry targets and a magnetic high south of the Laverdiere skarn that was suggested to be a good skarn target. In addition, several lineaments were also identified.

Drilling results of the skarn include a 3.05 m section that assayed 2.85% copper, 10.3 g/t silver and 0.69 g/t gold. The Laverdiere skarn and porphyry is currently held by Noranda Explorations Ltd.



CARMAC RESOURCES

WILLISON CREEK PROPERTY
CLAIM MAP

DRAWN BY: T.K.	NTS 104M/1
DATE: NOV/90	FIGURE NO: 3

Prospecting completed by a Mr. Callaghan in 1919 discovered a precious metal vein at the mouth of Hoboe Creek. Grab samples of the vein assayed up to 1.58 oz/t gold and 7.0 oz/t silver. The Callaghan vein is currently held by Pacific Sentinel Gold Corp.

Falconbridge Ltd. included the Willison Bay area in a regional prospecting program conducted in 1966. Late in the season, two styles of mineralization were located on the presently held Willison property. The first style referred to as Jackie consists of podiform massive sulphides in limestone and schists consisting of galena, sphalerite and pyrite with associated silver values. Mapping has shown the pods to be up to 30 m long and 7 m wide. The second style of mineralization as noted at the Falcon showing consists of quartz veins in which galena, sphalerite and pyrite along with chalcopyrite, arsenopyrite and stilomite with anomalous gold and silver occur. Limited trenching and sampling was completed by Falconbridge.

Cominco Ltd. completed limited prospecting in 1970 that resulted in the discovery of porphyry mineralization and a quartz vein carrying copper minerals. The Molly and Molly South claims were staked to cover molybdenum-copper-tungsten porphyry and silicified breccias along alaskite-granodiorite contacts. These showings are currently held by Equity Silver Mines Ltd. The Mussen vein occurs in a zone of pyrite-pyrrhotite alteration on Mt. Mussen and is currently held by Pacific Sentinel Gold Corporation.

Due to a Wilderness Reserve designation, no work was completed in the vicinity of the Willison claims between 1976 and 1989 when the area was opened to limited exploration. Kim Hudson staked the property in 1989 and completed a five day examination of the property that resulted in the taking of several rock chip samples, prospecting and thin section studies.

5.1 1990 Work Program

The 1990 work program consisted of the following:

a) the setting up of a base camp near the workings.

b) the establishment of a chained and flagged grid (Jackie).

c) the detailed mapping of the gridded area and nearby Falcon showing and the reconnaissance mapping of traverses over selected areas.

d) the sawing and channel sampling of 28 trenches totalling 129.8 m within the gridded area.

e) the sawing and channel sampling of three trenches totalling 10.7 m on the Falcon showing. In addition, four hand trenches totalling 4.46 m were excavated and trenched.

f) the collection of 365 rock chip and three silt samples from selected areas.

g) geophysical surveying (Magnetometer and EM) of the gridded area and the reading of reconnaissance test lines. The total line length of the survey is 5 km.

6.0 REGIONAL GEOLOGY (Figure 4)

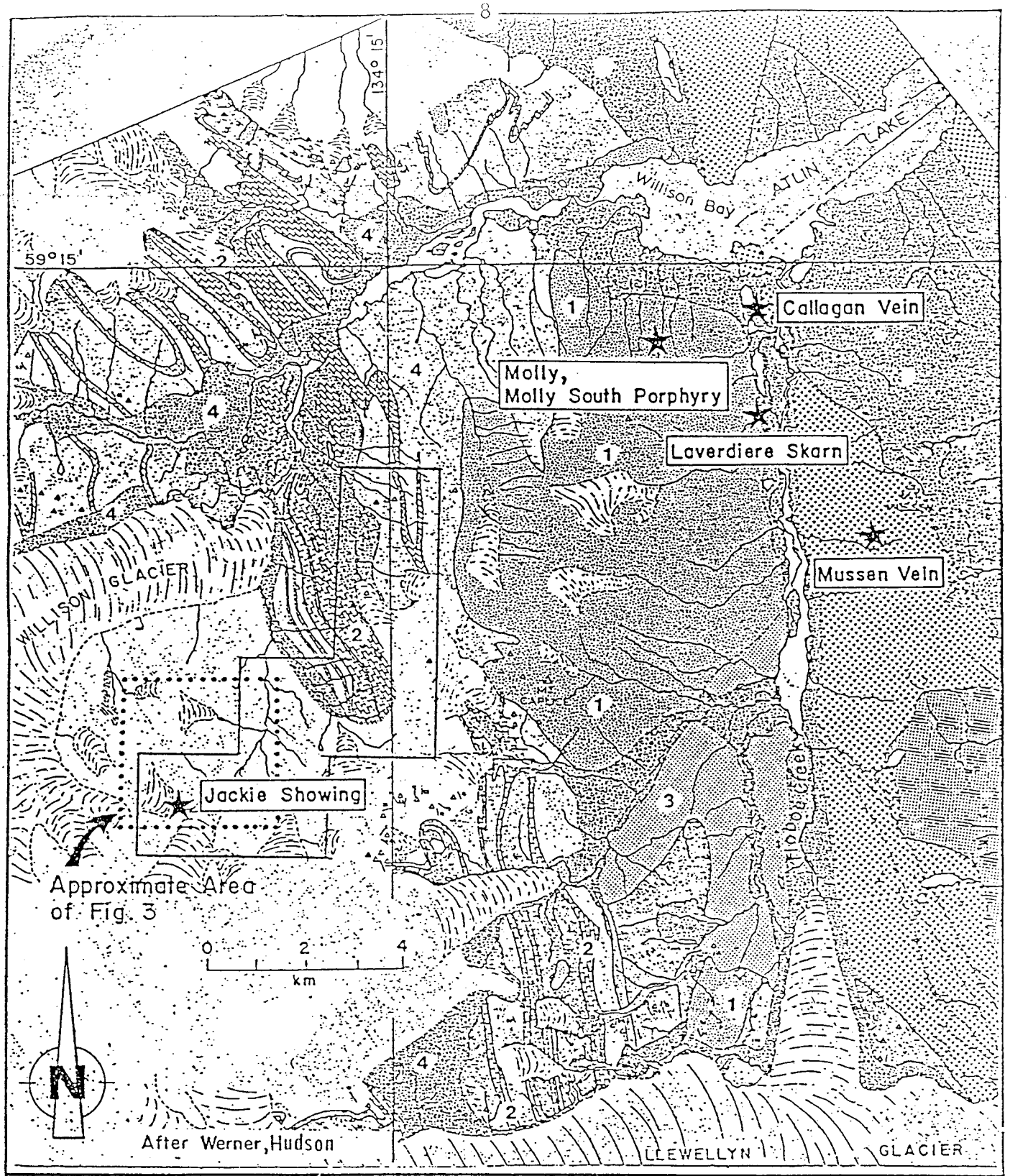
The following geologic summary was produced by K. Hudson, (1989). The regional geology map for the Atlin area (Bennet Sheet) published by the G.S.C. (Christie, 1957) was based on work completed between 1950 and 1954. The BCMEMPR is currently remapping the ground in the vicinity of the Llewellyn Fault, including the area immediately northwest of Willison Bay which was mapped in the 1989 field season (Mihalynuk, 1989).

University work is also being done to improve the geologic database in the Willison Bay region. An unpublished UBC Masters thesis by Len Werner involved 1:34,000 scale mapping of the area. This thesis was never completed but the geology map is available (Figure 4). Another thesis is currently being undertaken at Carton University by Lisel Currie. Her work has included mapping of the Willison Bay area.

The Willison Bay property lies along the eastern flank of the Boundary Ranges at the contact zone of the Intermontane Belt and Coast Plutonic Complex. Pre-Permian sediments of the Nisling Terrane have been metamorphosed to feldspar-chlorite gneiss, amphibolite gneiss, chlorite schist, quartzite and limestone (Christie, 1957).

Intrusive phases are suggested by geologic relationships to have been emplaced during Jurassic (Nielson, 1973) and Cretaceous times (Schroeter, 1986). Granodiorites from the Willison Bay intrusion indicate ages of 96 +/- 3.4 Ma and 214 +/- 5 Ma (K-Ar analyses on biotite and hornblende). The younger ages are thought to be reset (R. Armstrong, pers. com. to K. Hudson).

The earliest intrusive phase is a hornblende granodiorite which was later intruded by biotite granodiorite. Alaskites cut the earlier intrusions with mineralization occurring in the contact zones. Felsic dykes, mafic dykes and quartz veins occur as very late phases (Williams, 1972). Quartz monzonite and latite porphyry rocks have also been described in the area (Fustos, 1974 and Fipkie, 1974).



LEGEND

- 1 Granodiorite, Alaskite
- 2 Pre Permian limestone
- 3 Sloko volcanics
- 4 Overburden
- ★ Mineralized Showing

CARMAC RESOURCES

WILLISON CREEK PROJECT
Atlin Mining Division, B. C.

Regional Geology

DEC/1990 NTS 104 M I FIG. 4

Quartz monzonites also occur south of the Llewellyn Glacier in the Tulsequah camp (Souther, 1971). Souther has suggested that these late Cretaceous-Tertiary intrusions are genetically related to the Sloko volcanics. If so, the occurrence of Sloko volcanics west of Hoboe Creek supports the possibility of equivalent quartz monzonites occurring in the area.

Several alteration assemblages are associated with the intrusion. They include potassium-quartz and carbonate-pyrite-chlorite assemblages (Fipkie, 1974). Sericitization and kaolinization have also been noted (Wilton, 1970).

Deformation of pre-Permian sediments has been extensive. Three phases of folding have been recognized resulting in a thickening of the carbonate horizons (Len Werner, pers. com. to K. Hudson, 1989).

A major structural break cuts the Willison Bay area along Hoboe Creek in the form of the Llewellyn Fault. It forms a northwest trending dextral transcurrent fault (Mihalynuk, 1988). Regionally, subsidiary splays of this fault host several mineralized prospects including the Engineer Mine (Schroeter, 1986). In the project area, known vein orientations are subparallel to the Llewellyn Fault.

Three styles of mineralization occur in the geologic setting: Cu-Mo-W porphyries, Cu magnetite skarns with minor gold and gold quartz fissure veins.

Porphyry molybdenum mineralization occurs disseminated in granodiorite and alaskite and in silicified breccia zones at their contacts (Minfile 104M 029). Chalcopyrite, stibnite, tetrahedrite, scheelite and magnetite also occur in the intrusions (Fed Min Inv 104M/1).

Skarn replacement bodies are characterized by magnetite-hematite-serpentine-talc-yellow garnet (Grossularite)-tremolite-diopside assemblages. Mineralization includes chalcopyrite, erythrite, tetrahedrite, malachite, cobaltite, scheelite, molybdenite and minor gold and silver (Minfile 104M 022).

Irregular and discontinuous quartz and quartz-carbonate veins are seen in the gossanous envelope more distal to the intrusion. They ar oriented subparalles to the Llewellyn Fault. Generally, veins are of two types: gold-pyrite veins with lesser arsenopyrite and chalcopyrite and gold-pyrite-chalcopyrite-galena-sphalerite veins with minor tetrahedrite (Christie, 1957).

7.0 PROPERTY GEOLOGY

In 1990 mapping was, in general, confined to the vicinity of the Jackie and Falcon showings. For the purposes of mapping of the Jackie massive sulphide lenses, a flag and chained grid was established with a 300 m long baseline with lines every 25 m. Stations were established every 25 m along the tie lines. Elsewhere on the property, regional mapping was completed in the course of prospecting traverses.

The property geology has been described by Hudson (1989) as follows: The Willison Creek claims cover Pre-Permian biotite-quartz schists, quartz-sericite schists, gneisses and limestones of the Nisling Assemblage. Within the property these metasediments are cut by numerous northwest trending alaskite dykes. The dykes are composed of feldspar, muscovite and minor quartz. They are surrounded by pyritic-limonitic alteration haloes and are locally argillically altered. Grain size in the dykes varies from pegmatic to aplitic. One float sample of alaskite near the Jackie showing contains tourmaline.

Limestones are commonly recrystallized and white or, fine grained and grey with disseminated and fracture related pyrite and are abundant on both sides of Turtle Creek and the ridge east of South Willison Creek. Float samples of garnet, epidote, tremolite, magnetite, and minor pyrite and pyrrhotite indicate skarns occur in the area. Carbonatized ultramafics were also seen in float in Turtle Creek Valley. In the vicinity of the Jackie showings the limestone is observed to dip steeply to the south.

The most impressive mineralization on the property occurs in the southwest claim area where previously completed work by Falconbridge indicates that at least 40 to 50 mineralized zones exist on the hillside.

The massive sulphide lenses occur within marble and biotite-muscovite-sericite schists generally near the contacts between the units. The sulphide lenses are in general surrounded by large zones of limonite alteration in which numerous northwest trending alaskite dykes and northwest trending hornblende porphyry dykes cut across the metasediments. The lenses appear to have their greatest width near the dykes. Several northeast and northwest trending faults tend to follow the general direction of the dykes suggesting that faults and dykes control mineralization along structural pathways.

The limestone is bounded by a quartz biotite schist to the north and gneiss to the south. Lithological contacts trend 140° to 170°. The limestone displays a change in texture which may suggest a zonation peripheral to an unseen intrusion reflecting decreasing temperatures. Locally, where the limestone is in contact with the schist, a garnet-chlorite-pyrite assemblage occurs which may represent a tectonized skarn. The adjacent limestone has been metamorphosed to medium grained white marble. Further to the southwest, the limestone is grey, fine-grained and locally silicified.

7.1 Mineralization

To date two mineralized zones have been located Jackie and Flacon. The Jackie Zone refers to the area of massive sulphide pods and lenses while the Falcon Zone refers to a quartz vein system located 700 m northeast of the main Jackie lens. Both zones had been previously located by Falconbridge.

7.2 Jackie Showing

On the Jackie Grid replacement pods of galena, sphalerite, chalcopyrite, pyrrhotite and pyrite occur parallel to lithology both in the schists and limestone. They vary in size from 1 by 0.5 m to 30 by 6 m. The small pods contain sphalerite and galena. The largest pod varies mineralogically along its length. Galena, quartz and calcite dominate the northwest end giving way to pyrrhotite, chalcopyrite and pyrite in the centre and border areas. The southeast end contains massive sphalerite and galena similar to the smaller pods.

East-west trending faults bound the largest pod and contain veins of sphalerite and galena.

7.3 Falcon

The Falcon showing consists of two northwest trending quartz veins contains semi-massive arsenopyrite and stibnite with lesser amounts of galena and pyrite. The vein system is exposed for 25 m with the along strike extensions being talus covered. Widths are variable to 2.2 m. A quartz feldspar porphyry breccia to the northwest of the vein system contains smaller quartz veins in which semi-massive arsenopyrite and stibnite occurs. Individual veins at the Falcon showing are up to 1.2 m wide and contain appreciable silver and gold values.

8.0 GEOCHEMISTRY

8.1 Field Procedure

Hand-sawn trenching, using a blade equipped chain saw, was completed over selected areas of mineralization on both the Jackie and Falcon showings. Channel samples, over measured widths were collected, identified, then sent to the laboratories for analysis. Hand trenching was conducted in areas where sawn trenches could not be completed. In addition, chip or grab samples were taken from selected outcrops in the course of property mapping. Three silt samples were collected on one traverse.

In the course of sampling, all trenches were mapped. The sample descriptions are listed in Appendix 1, while Appendix 2 contains copies of the sample results. The regional sample locations are plotted on Figure 5 while the trench sample locations and their geology are plotted on Figures 6-19. Table 1 summarizes the trench results. During the program, a total of 365 rock samples were collected and sent for analysis.

8.2 Assay Procedure

All of the samples were prepared and analyzed for gold in Whitehorse, Yukon Territory by Northern Analytical Laboratories (NAL) with samples containing >1000 ppb Au being fine assayed. In addition, assaying for silver was completed by NAL on selected samples. All samples were sent to Vancouver to Cavendish Analytical Laboratory Ltd. to be analyzed by the Multi-element (I.C.P.) method with the assaying of samples that contained >10,000 ppm Cu, Pb and Zn being completed by Rossbacher Laboratory Ltd.

The following is an outline of the procedure used for the preparation and analysis of the samples:

Samples dried (if necessary), crushed or sieved to pulp size and pulverized to approximately -140 mesh.

For the 30 element I.C.P. analysis, a 10 gram sample is digested with 3 ml of 3:1:3 nitric acid to hydrochloric to water at 90° C for 1.5 hours. The sample is then diluted to 20 mls with demineralized water and analyzed. The leach is partial for Al, B, As, Ca, Cr, Fe, K, Mg, Ma, Na, Q, Sb, Ti, U, and W.

For gold determination by atomic absorption, a 10 gram sample that has been ignited overnight at 600° C is digested with hot dilute aqua regia and the clear solution obtained is extracted with Methyl Isobutyl Ketone (MIBK). Gold is determined in the MIBK extract by atomic absorption using a background detection (detection limit 5ppb).
For fire assay analysis, a one assay ton subsample is used.

For lead, zinc and silver assays, the samples were digested by aqua regia then analyzed by atomic absorption.

For arsenic analysis a 2 g sample is digested by aqua regia then assayed by I.C.P.

8.3 Results

The assay results are discussed below by zone:

8.3.1 Jackie (Figures 6-18)

Mapping and trenching show the Jackie Zone to contain numerous pods and lenses the largest being 30 m long by up to 6 m wide. The majority of showings are pods less than 2 m x 0.5 m. Grades are highly variable throughout with the showings containing various combinations of galena sphalerite and pyrite/pyrrhotite along with minor chalcopyrite. Silver values are low throughout being generally less than 1 opt while gold values are all less than 100 ppb. The highest grades are associated with massive sulphide with the best trench averaging 11 ppb Au, 14.7 ppm Ag, 0.15% Cu, 0.14% Pb, 14.59% Zn across 2.0 m while the widest significant intersection averaged 25 ppb Au, 21.8 ppm Ag, 0.08% Cu, 0.98% Pb and 6.39% Zn over 7 m. In general, there appears to be no "leakage" from the pods with values dropping to background in the host limestones and schists.

8.3.2 Falcon (Figure 19)

Mapping and sampling of the Falcon Zone shows highly anomalous gold and silver values to occur within quartz veins associated with galena, sphalerite, arsenopyrite and stibnite, pyrite and minor chalcopyrite. Hand trenching returned values of up to 0.097 opt Au, 77.05 opt Ag, 0.15% Cu, 2.50% Pb, 3.32% Zn along with 5.78% As and 2.56% Sb across 2.2 m. A 1.3 m sawn trench across the above assayed 0.025 opt Au, 33.10 opt Ag, 0.16% Cu, 0.57% Pb, 0.75% Zn with 1.24% As and 0.49% Sb. Assay results throughout the zone are variable. While the results in general show anomalous precious metal values to correspond with base metals, this is not always the case. In one trench, a 0.5 m sample that assayed <0.01% Cu, 0.12% Pb, <0.01% Zn along with 0.74% As and <0.04% Sb assayed 0.182 opt Au with 0.48 opt Ag.

8.3.3 Elsewhere (Figure 5)

Prospecting traverses completed on selected areas of the property resulted in the sampling of prospective ground. As a result, one highly anomalous silver bearing vein was located 700 m west of the Falcon showing that assayed 137 ppb Au, 141.2 opt Ag, 0.45% Cu, 0.07% Pb, along with 1.3% Zn over 1 m. The showing occurs in an area of erratic quartz veining.

9.0 GEOPHYSICS (Appendix 3)

A geophysical (total magnetic field/VLF EM) survey was completed on the Jackie Grid by Amerok Geophysics. The survey and procedure results are described in detail in Appendix 3.

According to Amerok, two VLF conductors were located by the survey using the Jim Creek Transmitter. The most important of these runs the length of the grid and parallels the showing. It is generally continuous but fades south of line 200N. It is difficult to see in the shorter survey profiles but is more obvious in the longer profiles where the full response is shown. Between these lines only the central "crossover" segment of the response is visible. A short second conductor occurs at approximately 50E on lines 200N and 300N. The main conductor seems to follow a subtle magnetic low and the secondary conductor might splay from it near 100N,0E. The main conductor appears to be steeply dipping, possibly to the east. The Cutler data is of little us in directly identifying conductors parallel to the showing. No obvious cross-cutting conductor responses are evident in the profiles; several possible crossovers occur but they should be re-examined together with the geology.

Survey results seem to suggest that the conductor coincident with the showing continues to the north and that conductance also improves in this direction. Increasing conductor thickness, graphite or sulphide mineralization or fault gouge might cause this increased conductance. If further work is planned on this showing, the geophysical results suggest that an extension of the grid to the north rather than south is warranted.

10.0 SUMMARY AND CONCLUSIONS

The Willison property lies along the eastern flank of the Boundary Range at the contact zone of the Intermontane Belt and Coast Plutonic Complex. The claims are underlain by Pre-Permian biotite-quartz schists, quartz-sericite schists, gneisses and limestones of the Nisling Assemblage. Two styles of mineralization have been located on the property: massive sulphide replacement pods of galena, sphalerite, pyrite, pyrrhotite along with chalcopyrite with associated silver values as exhibited at the Jackie showing and quartz veins in which variable amounts of galena, sphalerite, chalcopyrite, arsenopyrite and stibnite with associated silver and gold values occur as noted a the Falcon showing.

The pods at the Jackie vein range up to 30 m long x 7 m wide. Grades are variable throughout with the widest significant intersection averaging 25 ppb Au, 21.8 ppm Ag, 0.08% Cu, 0.98% Pb and 6.39% Zn over 7 m. In general, gold, silver and copper values are low throughout, while zinc and lead values in the sulphide pods are >1%. At the Falcon showing the quartz veins are exposed for up to 25 m with the along strike extensions being drift covered.

Individual veins are up to 1.2 m wide with grades being variable. A 2.2 m wide sample of the system averaged 0.097 opt Au, 77.05 opt Ag, 0.15% Cu, 2.50% Pb and 3.32% Zn along with 5.78% As and 2.56% Sb.

Elsewhere on the property, prospecting has located another significant showing 700 m to the west of the Falcon. Here a 1 m wide quartz vein of indeterminate length assayed 137 ppb Au, 141.2 opt Ag, 0.45% Cu, 0.07% Pb along with 1.3% Zn. Geophysical surveying completed on the Jackie Grid, a conductor to parallel the showing's that follow a magnetic low.

From the mapping and sampling, it appears the property's best potential occurs in the quartz veins. The veins are considered the most promising because:

a) they are relatively unexposed with the strike length being not defined due to overburden cover.

b) the assaying to date shows significant silver and gold values.

11.0 RECOMMENDATIONS

It is recommended that additional work consisting of mapping, trenching and sampling be completed on the quartz vein systems (Falcon) located on the Willison property. In addition, prospecting should be completed to the north of the Falcon showing to determine whether the Falcon is part of a larger quatz vein system.

TABLE 1

SUMMARY: TRENCH RESULTS - WILLISON PROJECT

ZONE	TRENCH #	INTERSECTION FROM	INTERSECTION TO	INTERSECTION INT	Au ppb	Ag ppm	Cu %	Pb %	Zn %
Jackie	1	4.0	5.00	1.00	<10	12.80	<0.02	0.79	1.02
(Sawed)	2	N.S.							
	3	6.0	8.50	2.50	11	16.70	0.12	1.15	9.98
	4	1.0	3.00	2.00	21	17.50	0.18	0.54	8.65
	5	2.7	3.20	0.50	15	6.40	0.50	17.40	9.04
	6	0.0	7.00	7.00	25	21.80	0.08	0.98	6.39
	7	0.0	2.00	2.00	11	14.70	0.15	0.14	14.59
	8	1.0	2.00	1.00	111	3.70	0.22	7.32	6.16
	9	3.0	6.00	3.00	152	3.23*	0.03	3.23	0.10
	10	N.S.							
	11	N.S.							
	12	0.5	1.00	0.50	<10	4.70	0.11	0.07	7.70
	13	0.0	1.00	1.00	31	4.21*	0.12	16.65	9.70
	14	N.S.							
	15	N.S.							
	16	N.S.							
	17	N.S.							
	18	N.S.							
	19	N.S.							
	20	N.S.							
	21	0.0	1.00	1.00	60	18.30	0.03	1.04	1.12
	22	N.S.							
	23	2.0	3.00	1.00	71	3.76*	0.06	1.35	1.02
	24	N.S.							
	25	2.0	4.00	2.00	34	11.10	0.05	0.04	3.52
	26	1.0	4.00	3.00	28	22.00	0.05	0.13	3.76
	27	0.0	1.00	1.00	<10	23.40	0.11	0.40	7.72
	28	N.S.							
Falcon	29	6.0	7.20	1.20	0.025*	33.10*	0.16	0.57	0.75
(Sawed)	30	N.S.							
	31	N.S.							
Falcon	32	0.0	2.20	2.20	0.097*	77.05*	0.15	2.50	3.32
(Hand)	33	0.0	0.50	0.50	0.182*	0.48*	<0.01	0.12	<0.01
	34	0.0	0.16	0.16	0.025*	61.20*	0.10	1.96	2.30
	35	0.0	0.22	0.22	0.016*	0.95*	<0.01	0.26	0.08
	36	0.0	0.40	0.40	0.028*	28.45*	<0.01	1.12	0.89

12.0 STATEMENT OF COSTS - WILLISON PROJECT

Program duration: July 26 - August 25, 1990 = 31 days (4 days are related to mobe/demobe charges which are to be pre-pro-rated over the program to the claim groups as outlined below.

The property, for assessment purposes, is split into two groups:

Will 1	Will 2
NA 4056 - 16 Units	NA 3856 - 16 Units
	NA 3858 - 16 Units
	NA 4058 - 16 Units
	NA 4258 - 16 Units
	NA 4260 - 16 Units
	NA 4262 - 16 Units
	96 Units

PRO-RATED CHARGES

Mobe/Demobe:

i) Labour			
D. Visagie	4 days @ $232/day	$ 928.00	
B. Malahoff	4 days @ $185/day	$ 740.00	
D. Kosmynka	4 days @ $204/day	$ 816.00	
			$2,484.00
ii) Transportation			
Truck			
	2 trucks x 4 days @ $75/day	$ 600.00	
Helicopter			
	July 28 3.2 hrs x $675/hr	$ 2,160.00	
	Aug. 17 1.7 hrs x $675/hr	$ 1,147.50	
	5.9 hrs x $675/hr	$ 3,307.50	
Float Plane			
	July 28 1 trip x $120.00	$ 120.00	
			$ 4,027.50
iii) Room & Board			
	12 man-days @ $75/day		$ 900.00
			$ 7,411.50

The cost per day assigned to mobe/demobe for purposes of assessment are: $\frac{7411.50}{31 \text{ days} - 4 \text{ days (mobe/demobe)}} = \$ 274.50$

Will 1 Group

Date worked: August 20, 1990

A) Labour

D. Kosmynka: 1 day @ $204/day = $ 204.00
B. Malahoff: 1 day @ $185/day = $ 185.00

2 man-days $ 389.00

B) Mob/Demobe

1 day pro-rated $ 274.50

C) Room & Board

2 man-days @ $75/day $ 150.00

D) Transportation

Truck:
1 day @ $75/day $ 75.00

Helicopter:
1.9 hrs x $675/hr $1,282.50

$1,357.50

E) Sampling/Assaying

14 rock prep @ $3.75 $ 52.50
2 silt prep @ $1.00 $ 2.00
16 sample I.C.P. & Au geochem @ $14.00 $ 224.00

$ 278.50

F) Report

Includes xeroxing, drafting, data entry, preparation, office overhead $ 300.00

Sub-total Will 1 $2,749.50

Will 2 Group

Dates Worked: July 29 - Aug 19, 21 - 25: 26 days
Sept. 12 (Geophysical survey)

A) Labour

D. Kosmynka: 26 days x $ 204.00	$ 5,712.00	
B. Malahoff: 26 days x $ 185.00	$ 5,180.00	
D. Visagie: 8 days x $ 232.00	$ 2,088.00	
60 man-days		$12,980.00

B) Mobe/Demobe
26 days pro-rated $ 7,137.00

C) Room & Board

60 man-days @ &75/day $ 4,500.00

D) Transportation

Truck:

26 days @ $75/day (Vehicle A)	$ 1,950.00
8 days @ $75/day (Vehicle B)	$ 600.00

Helicopter:

Aug. 2 @ 0.8 hrs x $675/hr	$ 540.00	
Aug. 5 @ 1.7 hrs x $675/hr	$ 1,147.50	
Aug. 21 @ 1.6 hrs x $675/hr	$ 1,080.00	
Aug. 22 @ 1.6 hrs x $675/hr	$ 1,080.00	
Aug. 23 @ 1.2 hrs x $675/hr	$ 810.00	
Sept 12 @ 1.8 hrs x $675/hr	$ 1,215.00	
		$8,422.50

E) Supplies

Total of all bills $ 507.05

F) Sampling/Assaying

351 rock prep @ $3.75	$1,316.25	
1 silt prep @ $1.00	$ 1.00	
352 I.C.P. & gold geochem @ $14.00	$4,928.00	
1 gold assay @ $9.75	$ 9.75	
25 silver assay @ $9.75	$ 243.75	
3 silver/gold assay @ $13.00	$ 39.00	
2 copper assay @ $7.00	$ 14.00	
22 lead assay @ $7.00	$ 154.00	
35 zinc assay @ $7.50	$ 262.50	
49 silver geochem @ $2.50	$ 122.50	
		$ 7,090.75

G) Geochemical Surveying

Bill as submitted by Amerok Geophysics	$ 2,843.00

H) Report

Includes xeroxing, drafting, data entry, preparation, office overhead	$ 4,500.00
Sub-total Will 2	$47,980.30

Totals

Will 1	$ 2,749.50
Will 2	$47,980.30
Grand Total:	$50,729.80

13.0 STATEMENT OF QUALIFICATIONS

I, D.A. Visagie of 860 - 625 Howe Street, Vancouver, British Columbia, do hereby declare that:

1. I graduated from the University of British Columbia with a Bachelor of Science Degree, majoring in Geology, in 1976.

2. I have been steadily employed in the mining industry since then and have since January 1990 been employed by Northair Mines Ltd. as Senior Geologist.

3. The work undertaken on the Willison property was under my supervision.

Dated at Vancouver, British Columbia, this 13th day of February, 1991.

Dave Visagie

I, Brian Malahoff of 860 - 625 Howe Street, Vancouver, British Columbia, do hereby declare that:

1. I graduated from the University of British Columbia with a Bachelor of Science degree, majoring in Geology, in 1985.

2. I have been steadily employed in the mining industry since then and have been employed by the Northair Group, under contract, since July, 1990.

3. The work on the Willison property was completed by myself and a crew under my supervision.

Dated at Vancouver, British Columbia, this 13th day of February, 1991.

Brian Malahoff

APPENDICES

Abbreviation Schedule

Abbreviation	Description
musc	muscovite
ser	sericite
po	pyrrhotite
py	pyrite
ga	galena
sp	sphalerite
asp	arsenopyrite
qv	quartz vein
bi	biotite
qtz	quartz
az	azimuth?
mal	malachite
carb	carbonate
alt	alteration
sil	silicified
lst	limestone
mag	magnetite
hfels	hornfels
congl	conglomerate
mod	moderate
tr	trace
dissem	disseminated
brx	breccia
antf	andesitic tuffs/flow
andes	andesite
w	with
anbx	andesite breccia

* sample values assayed:
- Au opt
- Ag opt
- Cu %
- Pb %
- Zn %

APPENDIX 1 - SAMPLE DESCRIPTION: WILLISON PROJECT

SAMPLE	CLAIM	LOCATION	INTERSECTION FROM (m)	TO (m)	INT (m)	ASSAY Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	DESCRIPTION
89801	NA3856	As on Map	grab			34	11.3*	100	1830	640	Massive ga, 1-2% py, cp, mod sil, limonite alt
89802	NA3856	As on Map	0.0	0.10	0.10	36	3.0	180	990	620	Qtz vein with tr po
89803	NA3856	As on Map	0.0	0.08	0.08	16	6.0	30	180	120	Minor qtz-carb vein 1-2% po, py, ga
89804	NA3856	As on Map	grab			<10	0.5	2020	230	960	Qtz-carb vein, tr dissem & stringer py
89805	NA3856	As on Map	0.0	0.35	0.35	<10	6.5	70	40	50	Stronly sil, limonite alt, massive po, 1% py, cpy
85851	NA3856	As on Map	grab			46	3.87*	1580	4280	17.90*	0.5 x 0.2 pod massive ga
85852	NA3856	As on Map				19	5.70*	1720	8.40*	8.40*	0.5 x 0.2 pod massive ga
85853	NA3856	As on Map				85	1.7	180	740	820	Pebble conglomerate dyke with 5% ga
85854	NA3856	As on Map				36	5.12*	6930	11.00*	10.30*	Massive ga in 0.3 x 2 m pod
85855	NA3858	As on Map	0.0	1.0	1.00	137	141.2*	4540	692	1.30*	1 m wide qv tr ga, mal, az
85856	NA3858	As on Map	0.0	1.0	1.00	41	2.15*	130	620	680	1 m wide qv, tr ga
85857	NA3857	As on Map	grab			47	23.6	40	160	270	
89806	NA3856	Tr 1	0.0	1.0	1.00	<10	0.5	70	40	50	Sil qtz-musc-bi schist, minor qv, tr po, py
89807	NA3856	Tr 1	1.0	2.0	1.00	<10	2.2	70	50	70	Hfels, tr carb alt, tr po, py
89808	NA3856	Tr 1	2.0	3.0	1.00	<10	3.0	140	680	590	Hfels; sericite & llimonite alt, 1%
89809	NA3856	Tr 1	3.0	4.0	1.00	<10	0.3	40	50	90	Musc-bi-schist hornfels, qtz flooded
89810	NA3856	Tr 1	4.0	5.0	1.00	<10	12.8	210	7920	1.02*	Lst & alaskite, qtz veined carb & limonite alt
89811	NA3856	Tr 1	5.0	6.0	1.00	<10	0.7	60	30	350	Sil bi-musc-qtz schist, tr-1% Py, Po

SAMPLE	CLAIM	LOCATION	INTERSECTION FROM (m)	TO (m)	INT (m)	ASSAY Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	DESCRIPTION
89812	NA3856	Tr 2	0.0	1.0	1.00	<10	0.3	40	110	100	Sil bi-musc-qtz schist with qtz boudinage
89813	NA3856	Tr 2	1.0	2.0	1.00	<10	0.1	40	20	30	Sil bi-musc-qtz schist with qtz boudinage
89814	NA3856	Tr 2	2.0	3.0	1.00	<10	0.1	20	10	40	Qtz, boudinage with minor host tr po, py
89815	NA3856	Tr 2	3.0	4.0	1.00	<10	2.6	20	10	36	Strongly sil qtz flooded musc-sericite, qtz schist
89816	NA3856	Tr 3	0.0	1.0	1.00	42	2.6	170	230	1190	Mod sil hfels, lst, with 1% py, ga, sp
89817	NA3856	Tr 3	1.0	2.0	1.00	12	2.1	40	110	2560	Mod sil hfels, lst, with 1% py, ga, sp
89818	NA3856	Tr 3	2.0	3.0	1.00	11	1.0	20	10	380	Mod sil hfels, lst, with 1% py, ga, sp
89819	NA3856	Tr 3	3.0	4.0	1.00	<10	1.4	40	50	2310	Mod sil hfels, lst, with 1% py, ga, sp
89820	NA3856	Tr 3	4.0	5.0	1.00	359	3.1	230	530	7660	Mod sil, lst 1-2% py, ga, sp, po
89821	NA3856	Tr 3	5.0	6.0	1.00	<10	1.2	20	10	100	Mod sil, lst 1-2% py, ga, sp, po
89822	NA3856	Tr 3	6.0	7.0	1.00	<10	11.7	1560	1040	14.90*	Massive sulphide limonite, carb alt po, sp, mag
89823	NA3856	Tr 3	7.0	8.0	1.00	12	26.7	970	2.72*	4.66*	Massive sulphide limonite, carb alt po, sp, mag
89824	NA3856	Tr 3	8.0	8.5	0.50	<10	6.6	830	790	10.80*	Massive sulphide limonite, carb alt po, sp, mag
89825	NA3856	Tr 4	0.0	1.0	1.00	<10	5.7	220	2610	3360	Mod sil lst & congl. dyke, 1-5% po, py, sp, ga
89826	NA3856	Tr 4	1.0	2.0	1.00	<10	13.0	1890	4800	14.20*	Massive sulphide sp, po, 1-3% py, cpy, ga
89827	NA3856	Tr 4	2.0	3.0	1.00	33	21.9	1650	6060	3.10*	Up to semi-massive sp, po, minor py, ga, tr cpy
89828	NA3856	Tr 5	0.0	0.5	0.50	14	0.5	40	90	280	Foliated banded lst, tr py, mod sil
89829	NA3856	Tr 5	0.5	1.0	0.50	18	1.1	20	30	300	Foliated banded lst, tr py, mod sil, minor ga
89830	NA3856	Tr 5	1.0	2.0	1.00	14	0.1	20	10	170	Foliated banded lst, tr py, po
89831	NA3856	Tr 5	2.0	2.7	0.70	21	0.8	40	50	330	Foliated banded lst, tr py
89832	NA3856	Tr 5	2.7	3.2	0.50	15		5020	17.40*	9.04*	Semi-massive sp, ga, po with 1% py, cpy in lst
89833	NA3856	Tr 5	3.2	3.8	0.60	27	0.2	50	40	70	Mod sil foliated lst tr dissem po, py

SAMPLE	CLAIM	LOCATION	INTERSECTION FROM (m)	TO (m)	INT (m)	ASSAY Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	DESCRIPTION
89834	NA3856	Tr 6	0.0	1.0	1.00	16	7.0	460	400	4.94*	Mod sil foliated lst,2-5% po,sp mod-strong limonite alt
89835	NA3856	Tr 6	1.0	2.0	1.00	23	11.5	1360	1870	8.98*	Semi-massive to massive sp, po, tr cpy, ga in lst
89836	NA3856	Tr 6	2.0	3.0	1.00	56	22.1	1330	3160	14.20*	Semi-massive to massive sp, po, tr cpy, ga in lst
89837	NA3856	Tr 6	3.0	4.0	1.00	40	0.1	40	30	390	Mod sil foliated lst tr po, sp, py
89838	NA3856	Tr 6	4.0	5.0	1.00	39	2.77*	1060	5.68*	8.10*	Mod sil foliated lst semi-massive sp,ga,po,py,tr cpy
89839	NA3856	Tr 6	5.0	6.0	1.00	<10	11.4	300	6140	5370	Mod sil foliated lst, tr po, py
89840	NA3856	Tr 6	6.0	7.0	1.00	<10	5.5	810	450	7.96*	Semi-massive to massive sp, po 1-3% ga, tr cpy
89841	NA3856	Tr 7	0.0	1.0	1.00	10	11.1	1360	720	15.10*	Massive sulphide pod in lst sp, po, tr py, ga
89842	NA3856	Tr 7	1.0	2	1.00	11	18.5	1630	2070	14.08*	Massive sulphide pod in lst sp, po, tr py, ga
89843	NA3858	As on Map	0.0	0.1	0.10	<10	17.4	726	479	457	Strongly sil grey white qtz vein
89844	NA3856	As on Map	grab			21	0.1	7	30	6	Strongly sil qtz carb vein 1% dissem py
89845	NA3856	Tr 8	0.0	1.0	1.00	10	0.1	15	1	53	Mod sil lst, tr py
89846	NA3856	Tr 8	1.0	2.0	1.00	111	3.76*	2220	7.32*	6.16*	Up to massive py, ga, sp, tr cp
89847	NA3856	Tr 8	2.0	3.0	1.00	<10	13.4	1586	1848	2.36*	Up to semi-massive ga, py, po, sp, cp in lst
89848	NA3856	Tr 8	3.0	4.0	1.00	<10	11.5	2120	2039	3276	Up to semi-massive ga, py, po, sp, cp in lst
89849	NA3856	Tr 8	4.0	5.0	1.00	<10	1.9	126	170	251	Mod sil bi-musc-qtz schist to dissem po, py
89850	NA3856	Tr 8	5.0	5.5	0.50	<10	1.5	65	101	117	Mod sil bi-musc-qtz schist to dissem po, py

SAMPLE	CLAIM	LOCATION	INTERSECTION FROM (m)	TO (m)	INT (m)	ASSAY Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	DESCRIPTION
88251	NA3856	Tr 9	0.0	1.0	1.00	<10	1.3	58	52	64	Qtz boudinage in bi-musc schist tr py, cpy, po
88252	NA3856	Tr 9	1.0	2.0	1.00	<10	1.4	60	46	70	Mod sil bi-musc qtz schist <1% py, po
88253	NA3856	Tr 9	2.0	3.0	1.00	<10	0.4	26	18	123	Mod sil bi-musc qtz schist <1% py, po
88254	NA3856	Tr 9	3.0	4.0	1.00	24	1.12*	343	2.02*	1207	Mod sil bi-musc qtz schist <1% py, po
88255	NA3856	Tr 9	4.0	4.7	0.7	179	3.84*	619	6.40*	1231	0.7 m wide qv, boudined, 5-10% ga, py, cpy, py
88256	NA3856	Tr 9	4.7	5.7	1.00	169	2.01*	381	1.96*	627	Qv brx, vuggy gossanous, tr py
88257	NA3856	Tr 9	5.7	6.0	0.30	463	4.00*	302	4.80*	627	Q-carb-vein, tr py
88258	NA3856	Tr 9	6.0	7.0	1.00	11	7.5	415	4221	1711	Qtz-schist vuggy gossanous carb alt
88259	NA3856	Tr 9	7.0	8.0	1.00	<10	0.5	48	121	826	Qtz-bi-musc schist fragmental, tr py, po, mod-limonite
88260	NA3856	Tr 9	8.0	8.5	0.50	<10	0.1	48	45	639	Fine grained lst <1% py, po, mod chlorite alt
88261	NA3856	Tr 9	8.5	9.0	0.50	<10	0.1	32	17	604	Lst and qtz-bi musc schist, tr py, po
88262	NA3856	Tr 9	grab			<10	18.7	2.42*	40.80*	1.24*	Qv massive ga 3-10% py, tr cp, mal
88263	NA3856	Tr 10	0.0	0.5	0.50	<10	4.3	184	2179	603	Mod sil-bi-qtz-garnet schist tr muscovite tr-1% po, py
88264	NA3856	Tr 10	0.5	1.5	1.00	14	1.1	185	291	275	Mixed lst with bi-qtz-garnet schist tr-1% po, py
88265	NA3856	Tr 10	1.5	2.5	1.00	<10	1.0	169	66	222	Mod sil bi-sericite qtz schist carb altered
88266	NA3856	Tr 10	2.5	3.0	0.50	12	1.9	116	89	157	Mod sil bi-sericite qtz schist carb altered
88267	NA3856	Tr 11	0.0	0.5	0.50	<10	0.5	31	49	140	Mod sil bi-qtz-musc schist weak carb alt
88268	NA3856	Tr 11	0.5	1.5	1.00	<10	1.0	138	142	5584	Mod sil bi-qtz-musc schist 1-5% ga, sp, py
88269	NA3856	Tr 11	1.5	2.5	1.00	<10	0.1	28	20	603	Mod sil lst, tr py, po
88270	NA3856	Tr 11	2.5	3.0	0.50	16	1.0	106	61	1669	Bi-qtz-musc schist, tr dissem py
88271	NA3856	Tr 12	0.0	0.5	0.50	<10	1.7	57	46	158	Bi-qtz-musc schist, tr dissem py, po
88272	NA3856	Tr 12	0.5	1.0	0.50	<10	4.7	1096	651	7.70*	Semi-massive ga, py, sp, weak carb alt in lst
88273	NA3856	Tr 12	1.0	1.5	0.50	<10	1.9	97	31	327	Mod sil bi-qtz-sericite schist, tr po, py
88274	NA3856	As on Map	grab			11	7.7	165	4931	6920	Qtz brx vein 2-10% ga, py, 1% cp
88275	NA3856	As on Map	grab			<10	1.8	157	108	1892	Qtz brx vein 2-10% ga, py, 1% cp

SAMPLE	CLAIM	LOCATION	INTERSECTION FROM (m)	TO (m)	INT (m)	ASSAY Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	DESCRIPTION
88276	NA3856	Tr 13	0.0	0.5	0.50	38	5.41	1396	19.70*	11.40*	Massive ga, sp, py, magnetite is lst
88277	NA3856	Tr 13	0.5	1.0	0.50	24	3.00	959	13.60*	8.60*	Massive ga, sp, py, magnetite is lst
88278	NA3856	Tr 13	1.0	1.5	0.50	<10	0.1	15	308	87	Sil lst, tr po, py, ga
88279	NA3856	Tr 14	0.0	1.0	1.00	<10	1.1	40	266	105	Boudin qv in musc-qtz-bi-schist, tr py, ga, po
88280	NA3856	Tr 14	1.0	2.0	1.00	<10	1.7	92	319	140	Boudin qv in musc-qtz-bi-schist, tr py
88281	NA3856	Tr 14	2.0	3.0	1.00	<10	8.5	191	4534	234	Boudin qv in musc-qtz-bi-schist, 1-10% ga, 1-15% py
88282	NA3856	Tr 15	0.0	1.0	1.00	<10	1.4	48	70	592	Musc-qtz schist, minor qv, tr po, py, ga
88283	NA3856	Tr 15	1.0	2.0	1.00	15	1.4	93	587	93	Musc-qtz schist <1% po, py, ga
88284	NA3856	Tr 15	2.0	3.0	1.00	24	0.1	62	62	76	Musc-qtz schist, weak sulphides
88285	NA3856	Tr 15	3.0	4.0	1.00	<10	0.5	51	82	52	Musc-qtz schist, weak sulphides
88286	NA3856	Tr 15	4.0	5.0	1.00	<10	0.1	72	27	64	Musc-qtz schist with lst
88287	NA3856	Tr 15	5.0	6.0	1.00	11	0.2	56	58	591	Lst with hblende-garnet bi-schist
88288	NA3856	Tr 15	6.0	7.0	1.00	<10	0.3	95	19	64	Hblende-garnet-bi-schist
88289	NA3856	Tr 15	7.0	8.0	1.00	<10	1.2	102	21	163	Bi-musc-qtz-schist
88290	NA3856	Tr 15	8.0	9.0	1.00	<10	1.5	18.1	31	88	Bi-qtz-garnet-musc-schist
88291	NA3856	Tr 15	9.0	9.8	0.80	11	1.0	140	16	87	Bi-qtz-garnet-musc-schist
88292	NA4056	As on Map	float			<10	0.3	97	21	81	Quartzite, tr dissem py
88293	NA4056	As on Map	grab			<10	0.1	5	4	30	Barren qtz vein
88294	NA3856	As on Map	grab			<10	2.3	197	59	201	Bi-qtz-musc-schist, 2-3% po
88295	NA3856	As on Map	grab			33	0.1	12	8	25	Qv limonite alt, 1-3% dissem py
89851	NA4056	As on Map	grab			10	0.1	14	25	162	Quartzite, tr po
89852	NA4056	As on Map	grab			<10	0.1	88	18	101	Quartzite, tr py
89853	NA3856	As on Map	grab			<10	0.1	56	11	81	Qtz bx vein 2-3% po, py
89854	NA3856	As on Map	grab			49	0.8	14	11	71	Quartzite 3% py
89855	NA3856	As on Map	grab			31	6.94	394	1.25*	3.22*	Semi-massive sulphide: py, cpy, ga, sp

SAMPLE	CLAIM	LOCATION	INTERSECTION FROM (m)	TO (m)	INT (m)	ASSAY Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	DESCRIPTION
90W1	NA4056	As on Map	silt			<10	0	83	14	69	
90W2	NA4056	As on Map				<10	0	23	23	106	
88296	NA3856	Tr 16	0.0	1.0	1.00	46	0.6	129	54	632	Mod sil lst, 1% py, po
88297	NA3856	Tr 16	1.0	2.0	1.00	<10	1.0	152	32	86	Lst with hblende dyke, tr po, py
88298	NA3856	Tr 16	2.0	3.0	1.00	<10	1.2	152	44	70	Lst with hblende dyke, tr po, py
88299	NA3856	Tr 16	3.0	4.0	1.00	<10	0.7	147	38	86	
88300	NA3856	Tr 16	4.0	5.0	1.00	<10	0.1	87	44	60	
88301	NA3856	Tr 16	5.0	6.0	1.00	<10	0.6	28	46	111	
88302	NA3856	Tr 17	0.0	1.3	1.30	<10	8.4	67	1709	1653	Hblende pophyry dyke weak carb alt
88303	NA3856	Tr 18	0.0	1.0	1.00	<10	1.2	178	50	105	Hblende-bi-qtz-garnet-schist,tr py,po,sp,ga
88304	NA3856	Tr 18	1.0	1.5	0.50	<10	2.4	200	89	187	Lst lense with 1% po, py, tr ga, sp
88305	NA3856	Tr 18	1.5	2.0	0.50	14	1.4	46	18	96	Hblende-bi-qtz-garnet-schist,tr py,po,sp,ga
88306	NA3856	Tr 18	2.0	3.0	1.00	<10	0.9	101	17	65	Hblende-bi-qtz-garnet-schist, sil tr po, py
88307	NA3856	Tr 18	3.0	4.0	1.00	<10	1.3	73	20	95	Hblende-bi-qtz-garnet-schist, sil tr po, py
88308	NA3856	Tr 18	4.0	5.0	1.00	<10	0.7	91	14	146	Hblende-bi-qtz-garnet-schist, sil tr po, py
88309	NA3856	Tr 18	5.0	6.0	1.00	<10	0.6	64	17	105	Hblende-bi-qtz-garnet-schist, sil tr po, py
88310	NA3856	Tr 19	0.0	1.0	1.00	34	1.4	152	37	86	Sil lst bx, 1-2% dissem py, po
88311	NA3856	Tr 19	1.0	2.0	11.00	<10	1.5	46	280	71	Sil vuggy colloform lst, tr py, po
88312	NA3856	Tr 19	2.0	3.0	1.00	11	1.0	83	867	788	Sil vuggy colloform lst, tr py, po
88313	NA3856	Tr 19	3.0	4.0	1.00	13	4.7	210	2004	1653	Sil vuggy colloform lst, tr py, po
88314	NA3856	Tr 19	4.0	5.0	1.00	19	1.8	136	119	237	Sil vuggy colloform lst, 2% py, po
88315	NA3856	Tr 19	5.0	5.2	0.20	166	0.2	109	41	66	Sil vuggy colloform lst, 2% py, po
88316	NA3856	As on Map	0.0	1.0	1.00	14	0.1	8	8	15	Barren white quartz vein, tr po, py

SAMPLE	CLAIM	LOCATION	INTERSECTION FROM (m)	TO (m)	INT (m)	ASSAY Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	DESCRIPTION
88317	NA3856	As on Map	grab			85	1.3	185	17	101	Qtz vein with tr po, py
88318	NA3856	As on Map	grab			10	1.7	105	498	621	Qtz vein with tr po, py
88319	NA3856	Tr 20	0.0	1.0	1.00	<10	1.9	105	498	621	Amphibolite tr-2% po, py, sp, ga
88320	NA3856	Tr 20	1.0	2.0	1.00	13	1.1	136	74	116	Amphibolite tr-2% po, py, sp, ga
88321	NA3856	Tr 20	2.0	3.0	1.00	14	15.8	266	994	581	Amphibolite tr-2% po, py, sp, ga
88322	NA3856	Tr 21	0.0	1.0	1.00	31	6.5	214	1670	3568	Amphibolite 2% py, <1% sp, ga
88323	NA3856	Tr 21	1.0	2.0	1.00	60	18.3	381	1.04*	1.12*	Amphibolite 2% py, <1% sp, ga
88324	NA3856	Tr 21	2.0	3.0	1.00	17	2.0	178	218	293	Amphibolite 2% py, <1% sp, ga
88325	NA3856	Tr 21	3.0	3.6	0.60	13	2.1	117	1040	480	Amphibolite 2% py, <1% sp, ga
88326	NA4056	As on Map	grab			<10	0.2	70	19	223	
88327	NA4056	As on Map	float			270	2.6	48	39	157	
88328	NA4056	As on Map	float			32	1.9	23	1	28	
88329	NA4056	As on Map	grab			246	1.8	61	28	137	
88330	NA4056	As on Map	grab			51	3.0	1386	20	121	Up to massive po, tr py, cpy in sil quartzite
88331	NA4056	As on Map	grab			56	2.2	725	21	106	Up to massive po, tr py, cpy in sil quartzite
88332	NA4056	As on Map	grab			26	1.1	66	6	27	Qtz vein in quartzite
88333	NA3858	Falcon	0.0	0.16	0.16	855	61.2*	1011	1.96	2.30*	Qv with semi-massive asp, tr py
88334	NA3858	Falcon	0.0	0.22	0.22	197	0.95*	39	2644	828	Qv with 5-10% asp, 1% py
88335	NA3858	Falcon	0.0	0.40	0.40	942	28.45*	327	1.12*	8922	Semi-massive asp over 10 cm, tr py, ga
88336	NA3858	Falcon	0.0	0.50	0.50	0.182	16.6	41	1160	79	Vein with 8% asp, drusy, vuggy
88337	NA3858	Falcon	grab			602	2.65*	49	4.32*	1407	Semi-massive ga, tr py, from qv
88338	NA3858	Falcon	grab			0.056	22.26*	563	1.98*	5215	Semi-massive asp in qv
88339	NA3858	Falcon	0.0	2.2	2.20	0.097	77.05*	1512	2.50*	3.32*	Trench-qv 10% asp, 10% py

SAMPLE	CLAIM	LOCATION	INTERSECTION FROM (m)	TO (m)	INT (m)	ASSAY Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	DESCRIPTION
88340	NA3856	Tr 22	0.0	1.0	1.00	36	27.2	89	82	69	Strongly sil amphibolite, tr po
88341	NA3856	Tr 22	1.0	2.0	1.00	33	19.4	158	4333	1649	Amphibolite with minor qv with ga, py, tr sp
88342	NA3856	Tr 22	2.0	3.0	1.00	<10	16.2	225	2558	1327	Amphibolite with minor qv with ga, py, tr sp
88343	NA3856	Tr 22	3.0	4.0	1.00	24	15.0	156	2849	416	Amphibolite with minor qv with ga, py, tr sp
88344	NA3856	Tr 22	4.0	5.0	1.00	<10	19.3	226	4685	647	Amphibolite with minor qv with ga, py, tr sp
88345	NA3856	Tr 22	5.0	6.0	1.00	12	6.0	56	117	230	Amphibolite with minor qv with ga, py, tr sp
88346	NA3856	Tr 22	6.0	7.0	1.00	45	6.3	73	118	209	Amphibolite with minor qv with ga, py, tr sp
88347	NA3856	Tr 22	7.0	7.4	0.40	<10	6.8	122	289	457	Amphibolite with minor qv with ga, py, tr sp
88348	NA3856	As on Map	0.0	1.0	1.00	28	19.8	263	5752	8484	Amphibolite with 10 cm qv with semi-massive py, sp
88349	NA3856	As on Map	0.0	1.0	1.00	50	3.65*	339	2.42*	1946	Gossanous leached zone in qv, 3-5% ga, tr sp
88350	NA3856	Tr 23	0.0	1.0	1.00	18	6.2	139	217	246	Bi-qtz-sericite schist, tr po, py
88351	NA3856	Tr 23	1.0	2.0	1.00	36	21.8	221	1280	616	Bi-qtz-sericite schist, tr po, py
88352	NA3856	Tr 23	2.0	3.0	1.00	71	3.76*	589	1.35*	1.02*	Semi-massive py, ga in lst
88353	NA3856	Tr 24	0.0	1.0	1.00	15	17.3	214	2680	1026	Lst + Bi-qtz-sericite schist, tr-1% ga, py, sp
88354	NA3856	Tr 25	0.0	1.0	1.00	34	5.7	76	109	757	Lst, tr po, py
88355	NA3856	Tr 25	1.0	2.0	1.00	37	5.6	86	49	1664	Lst, tr po, py
88356	NA3856	Tr 25	2.0	3.0	1.00	36	11.0	580	419	4.08*	Lst up to 15% py, po, ga, sp
88357	NA3856	Tr 25	3.0	4.0	1.00	31	11.2	447	386	2.96*	Lst up to 15% py, po, ga, sp
88358	NA3856	Tr 25	4.0	5.0	1.00	43	26.3	260	2535	3972	Lst up to 15% py, po, ga, sp

SAMPLE	CLAIM	LOCATION	INTERSECTION FROM (m)	TO (m)	INT (m)	ASSAY Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	DESCRIPTION
88359	NA3856	Tr 26	0.0	1.0	1.00	10	6.6	115	178	3635	Amphibolite, 1% po
88360	NA3856	Tr 26	1.0	2.0	1.00	16	19.5	421	1109	2.34*	Lst with up to semi-massive ga, sp, py, sp
88361	NA3856	Tr 26	2.0	3.0	1.00	37	127.4	525	2171	4.40*	Lst with up to semi-massive ga, sp, py, sp
88362	NA3856	Tr 26	3.0	4.0	1.00	31	19.0	428	572	4.54*	Lst with up to semi-massive ga, sp, py, sp
88363	NA3856	Tr 26	4.0	5.0	1.00	25	6.8	117	120	2216	Lst 1-3% dissem py
88364	NA3856	Tr 26	5.0	6.0	1.00	45	7.9*	220	1695	1.78*	Semi-massive py, sp in lst
88365	NA3856	Tr 26	6.0	7.0	1.00	72	1.68*	328	3562	8058	Gossan with 1-5% py, sp, tr ga in lst
88366	NA3856	Tr 26	7.0	8.0	1.00	21	17.7	250	913	5259	Gossan with 1-5% py, sp, tr ga in lst
88367	NA3856	Tr 26	8.0	9.0	1.00	33	1.02*	167	4949	3354	Gossan with 1-5% py, sp, tr ga in lst
88368	NA3856	Tr 27	0.0	1.0	1.00	<10	23.4	1083	4037	7.72*	Semi-massive to massive py, sp in lst
88369	NA3856	Tr 28	0.0	1.0	1.00	<10	4.9	137	172	1259	Amphibolite with mod-sil schist, tr-1% po
88370	NA3856	Tr 28	1.0	2.0	1.00	<10	7.3	471	239	604	Amphibolite with mod-sil schist, tr-1% po
88371	NA3856	Tr 28	2.0	3.0	1.00	52	5.2	266	152	1094	Amphibolite with mod-sil schist, tr-1% po
88372	NA3856	Tr 28	3.0	4.0	1.00	<10	4.3	273	73	951	Amphibolite with mod-sil schist, tr-1% po
88373	NA3856	Tr 28	4.0	5.0	1.00	<10	3.0	177	20	980	Amphibolite with mod-sil schist, tr-1% po
88374	NA3856	Tr 28	5.0	6.0	1.00	13	3.5	290	26	1135	Amphibolite with mod-sil schist, tr-1% po
88375	NA3856	Tr 28	6.0	7.0	1.00	21	4.9	123	37	480	Amphibolite with mod-sil schist, tr-1% po
88376	NA3856	Tr 28	7.0	8.0	1.00	33	4.5	131	39	1122	Amphibolite with mod-sil schist, tr-1% po
88377	NA3856	Tr 28	8.0	9.0	1.00	14	4.0	49	20	263	Amphibolite with mod-sil schist, tr-1% po
89856	NA3856	As on Map	grab			11	7.2	55	10	31	Sil lst - 2% py
89857	NA3856	As on Map	grab			32	0.8	18	9	15	Qtz vein
89858	NA4056	As on Map	grab			40	2.3	150	23	98	Quartzite
89859	NA4056	As on Map	grab				1.4	665	6	79	

SAMPLE	CLAIM	LOCATION	INTERSECTION FROM (m)	TO (m)	INT (m)	ASSAY Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	DESCRIPTION
88384	NA3858	Tr 29	0.0	1.0	1.00	58	8.1	64	150	411	Musc schist + qtz veining + quartzite, tr py
88385	NA3858	(Falcon)	1.0	2.0	1.00	52	10.5	133	703	356	Musc schist + qtz veining + quartzite, tr py
88386	NA3858	Tr 29	2.0	3.0	1.00	131	12.2	85	1471	464	Musc schist + qtz veining + quartzite, tr py
88387	NA3858	Tr 29	3.0	4.0	1.00	144	3.2	18	186	159	
88388	NA3858	Tr 29	4.0	5.0	1.00	115	12.8	140	341	553	Bi-musc-qtz schist w qv, tr-2% py
88389	NA3858	Tr 29	5.0	6.0	1.00	274	0.75*	205	4141	5715	Qv with 1-4% py, tr asp, ga
88390	NA3858	Tr 29	6.0	7.2	1.20	869	33.10*	1610	5744	7498	Qv with 1% py, semi-massive asp + 10% ga
88391	NA3858	Tr 30 (Falcon)	0.0	1.3	1.30	231	25.9	89	2248	207	Qv in musc schist, tr-2% py, tr ga
88392	NA3858	Tr 31	0.0	1.0	1.00	129	28.9	44	183	199	Qv, tr py
88393	NA3858	(Falcon)	1.0	1.6	0.60	48	2.8	44	57	281	Musc schist, tr py
88394	NA3858	Tr 31	1.6	2.2	0.60	142	7.5	114	249	381	Qv + musc schist, tr py
88395	NA3856	As on Map	float			0.042	1.53*	236	6123	160	Qv with tr py, ga, asp
88396	NA3856	As on Map	grab			27	2.3	179	74	42	Hornfels, 1-3% po
88397	A3856	As on Map	0.0	0.25	0.25	283	10.5	807	109	252	Vein with semi-massive asp, tr py, cpy
90W3	NA4058	As on Map	silt			18	5.0	35	27	64	

SAMPLE	CLAIM	LOCATION	INTERSECTION FROM (m)	TO (m)	INT (m)	ASSAY Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	DESCRIPTION
89863	NA3856	As on Map	float			37	7.4	11	126	42	Schist with semi-massive py
88373	NA3856	As on Map	0.0			362	3.9	159	17	89	Bi-qtz-hblende schist with semi-massive py,po
89864	NA3856	As on Map	grab			90	25.6	2602	5195	3585	Massive sp, po, magnetite, tr py, cpy, ga
89865	NA3856	As on Map	grab			24	13.16*	2.65*	24.50*	8.20*	Massive ga, sp, py, tr cpy
89866	NA3856	As on Map	0.0			<10	13.3	1832	3059	10.80*	Massive ga, sp, py, tr cpy
89867	NA3856	As on Map	0.0			13	3.2	104	412	1191	Bx dyke qtz feldspar tr py, blebs
89868	NA3856	As on Map	0.0			265	12.8	1757	947	15.00*	Massive sp with 5-10% py, tr ga
89869	NA4260	As on Map	grab			<10	2.5	462	26	1602	Massive py, po in fault gouge
89870	NA3856	As on Map	float			228	0.67*	89	3359	1100	Magnetite in vuggy strongly set gossan
89871	NA3856	As on Map	float			<10	2.2	19	43	236	Magnetite - massive
88379	NA4260	As on Map	grab			19	4.3	64	519	3317	Sit qv tr-1% dissem py
88380	NA4260	As on Map	grab			41	4.8	876	229	1307	Semi-massive py, po in quartzite
88381	NA4260	As on Map	grab			11	3.5	37	88	326	Quartzite with dissem py
88382	NA4260	As on Map	float			34	3.4	185	31	154	Gossanous quartzite 5-10% py, po
88383	NA4262	As on Map	grab			17	3.6	664	21	260	Semi-massive py, po in quartzite

Northern Analytical Laboratories ltd.

Appendix 2 - Assay Results

August 8,1990

Work Order # 08279

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 2T6

File # 08279a

Assay Certificate For Samples Provided

Sample	ppb Au	ppm Ag
89801	34	>100
89802	36	3.0
89803	16	6.0
89804	<10	0.5
89805	<10	6.5
89806	<10	<0.1
89807	<10	<0.1
89808	<10	0.6
89809	<10	<0.1
89810	<10	11.1
89811	<10	<0.1
89812	<10	0.2
89813	<10	<0.1
89814	<10	0.2
89815	<10	0.1
89816	42	0.1
89817	12	<0.1
89818	11	<0.1
89819	<10	<0.1
89820	359	0.6
89821	<10	<0.1
89822	<10	11.2
89823	12	39.0
89824	<10	6.1
89825	<10	4.6
89826	<10	12.3
89827	33	19.8
89828	14	0.2
89829	18	<0.1
89830	14	<0.1

Au -- 15g Fire Assay/AAS
Ag -- Aqua Regia Digestion/AAS Geochem

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

Northern Analytical Laboratories ltd.

August 6,1990

Work Order # 08279

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 2T6

File # 08279b

Assay Certificate For Samples Provided

Sample	ppb Au	ppm Ag
89831	21	<0.1
89832	15	>100
89833	27	0.1
89834	16	4.4
89835	23	10.4
89836	56	19.1
89837	40	<0.1
89838	39	95.0
89839	<10	9.6
89840	<10	2.6
89841	10	6.9
89842	11	15.5
85851	46	>100
85852	19	>100
85853	85	1.7
85854	36	>100
85855	137	>100
85856	41	74.0
85857	47	23.6

Au -- 15g Fire Assay/AAS
Ag -- Aqua Regia Digestion/AAS Geochem

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

Northern Analytical Laboratories ltd.

August 8,1990

Work Order # 08279

File # 08279c

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 2T6

Assay Certificate For Samples Provided

Sample	ppm Ag
89801	390.7
89823	44.9
89832	257.2
89838	93.6
89851	133.3
89852	196.6
89854	176.4
89855	4870.0
89856	67.9

Ag -- 1AT Fire Assay/Grav

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3H1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB LTD.
105 COPPER RD.
WHITEHORSE YUKON
PROJECT : W.O. 8279
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-8096
INVOICE # : NAL-90-8096
DATE ENTERED : AUG 12, 1990
FILE NAME : I8096
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	STDS	17	720	460	430	15.2	210	250	762	3.10	295	57	571	666	144	772	431	109	0.33	0.53	996	56	0.42	230	0.12	444	1.38	0.09	0.01	101	46
	89851	7	1580	4280	10.5%	>100.0	17	59	2590	20.10	215	ND	6	13	1010	87	219	2	0.48	0.08	10	74	0.18	65	0.01	4923	0.16	0.01	0.01	76	1
	89852	11	1720	23610	70240	>100.0	11	83	2048	19.52	39	6	11	16	597	85	247	1	1.94	0.16	4	68	0.24	74	0.01	4260	0.15	0.01	0.01	8	1
	89853	8	180	740	820	2.3	43	17	658	3.38	18	ND	ND	44	16	14	16	46	2.09	0.15	9	49	1.62	85	0.16	417	0.84	0.01	0.01	7	2
	89854	7	6930	23260	79740	>100.0	7	52	2875	18.87	38	ND	11	11	664	134	9	3	0.84	0.11	1	61	0.08	60	0.01	4463	0.05	0.01	0.01	14	1
	89855	5	4540	6920	11790	>100.0	8	7	5758	1.06	561	ND	ND	39	84	2728	2	5	3.74	0.15	5	36	1.29	46	0.01	192	0.03	0.01	0.01	1	1
	89856	10	130	620	680	61.1	1	2	121	0.56	22	ND	ND	5	5	77	2	36	0.08	0.01	1	67	0.04	158	0.01	72	0.17	0.01	0.01	1	1
	89857	7	40	160	270	21.7	9	5	47	1.15	56	ND	ND	1	3	19	4	13	0.02	0.01	2	45	0.02	37	0.01	115	0.05	0.01	0.01	1	1
	89801	9	1640	24190	52540	>100.0	5	61	2056	17.66	843	ND	10	9	435	75	534	2	1.09	0.11	1	65	0.16	63	0.01	4515	0.13	0.01	0.01	1	1
	89802	8	100	1830	640	3.1	21	18	84	2.40	56	ND	ND	2	7	2	8	5	0.24	0.01	1	64	0.05	36	0.01	362	0.05	0.01	0.01	1	1
	89803	5	180	990	620	7.3	47	13	692	3.34	39	ND	ND	239	7	20	9	32	6.00	0.20	7	33	0.65	57	0.16	499	1.78	0.05	0.02	10	1
	89804	6	30	180	120	1.7	10	8	688	1.21	26	ND	ND	119	4	15	22	22	8.64	0.16	12	34	0.53	128	0.01	53	0.27	0.01	0.01	9	1
	89805	7	2020	230	960	8.1	10	172	215	25.48	17	ND	ND	3	2	3	57	2	0.14	0.07	1	87	0.02	89	0.01	4403	0.03	0.01	0.01	3	1
	89806	6	70	40	50	0.5	21	11	221	2.39	16	ND	ND	36	1	4	8	26	0.53	0.06	11	44	0.62	164	0.10	277	0.94	0.02	0.01	1	1
	89807	4	70	50	70	2.2	44	13	542	2.44	31	ND	ND	187	3	17	6	69	2.26	0.17	28	87	1.82	167	0.24	200	1.78	0.04	0.01	7	3
	89808	4	140	680	590	3.0	50	19	751	3.39	45	ND	ND	202	8	12	5	86	2.08	0.21	40	95	2.21	84	0.26	362	1.93	0.04	0.01	6	4
	89809	11	40	50	90	0.3	18	8	268	1.77	12	ND	ND	32	2	2	8	30	0.56	0.07	13	51	0.64	170	0.10	124	0.83	0.02	0.01	2	2
	89810	9	210	7920	10010	12.8	27	21	1014	5.51	153	ND	ND	31	83	22	6	27	2.27	0.17	9	67	0.81	51	0.05	1141	0.65	0.01	0.01	3	1
	89811	6	60	30	350	0.7	19	5	446	1.94	15	ND	ND	56	4	2	5	24	0.53	0.06	9	48	0.67	130	0.10	189	0.77	0.01	0.01	2	1
	89812	13	40	110	100	0.3	16	7	142	1.57	11	ND	ND	16	1	2	4	27	0.24	0.02	8	63	0.50	135	0.07	167	0.77	0.02	0.01	1	2
	89813	8	40	20	30	0.1	19	8	76	1.66	9	ND	ND	10	1	2	8	15	0.13	0.02	6	50	0.30	80	0.04	171	0.48	0.01	0.01	1	1
	89814	7	20	10	40	0.1	9	5	67	0.77	8	ND	ND	5	1	2	14	16	0.11	0.01	5	54	0.15	48	0.02	87	0.21	0.01	0.01	1	1
	89815	5	20	10	30	0.1	11	5	107	0.93	15	ND	ND	7	1	2	9	14	0.24	0.01	10	43	0.17	66	0.02	137	0.23	0.01	0.01	1	1
	89816	3	170	230	1190	2.6	62	17	582	2.04	25	ND	ND	80	14	13	8	48	6.50	0.23	9	78	2.47	144	0.13	249	1.35	0.02	0.01	12	2
	89817	2	40	110	2560	2.1	10	7	1123	1.02	22	ND	ND	55	26	11	14	21	7.64	0.21	6	27	2.34	104	0.01	125	0.24	0.01	0.01	14	1
	89818	2	20	10	380	1.0	3	6	787	0.32	2	ND	ND	77	6	11	2	27	13.27	0.15	6	42	5.35	19	0.01	5	0.05	0.01	0.01	8	1
	89819	2	40	50	2310	1.4	5	7	1035	0.55	2	ND	ND	86	23	10	3	24	13.58	0.13	6	28	3.38	29	0.01	43	0.05	0.01	0.01	8	1
	89820	6	230	530	7660	3.1	8	11	1690	3.55	30	ND	ND	38	68	11	14	17	4.45	0.16	3	34	1.50	47	0.01	531	0.12	0.01	0.01	7	2
	89821	1	20	10	100	1.2	4	6	969	0.28	2	ND	ND	105	3	10	2	21	15.05	0.11	8	35	4.44	25	0.01	5	0.14	0.01	0.01	7	1
	89822	4	1560	1040	99500	11.7	10	74	3231	18.25	17	ND	ND	9	872	62	2	1	0.97	0.08	1	61	0.32	60	0.01	3774	0.07	0.01	0.01	43	1
	89823	6	970	17900	38240	26.7	23	31	1684	8.38	323	ND	ND	297	313	47	21	17	9.80	0.18	7	37	0.65	45	0.01	1578	0.27	0.01	0.01	1	1
	89824	3	830	790	78550	6.6	19	40	2694	10.28	37	ND	ND	178	671	57	2	12	7.03	0.18	5	40	0.62	78	0.01	2229	0.24	0.01	0.01	3	1
	89825	4	220	2610	3360	5.7	10	17	787	2.83	31	ND	ND	136	33	16	14	33	6.55	0.18	9	29	0.82	137	0.08	384	1.43	0.05	0.01	11	2
	89826	8	1890	4800	10.5%	13.0	21	81	2890	21.78	10	ND	ND	14	936	70	3	1	0.59	0.09	2	71	0.33	81	0.02	4355	0.18	0.01	0.01	58	1
	89827	6	1650	6060	26110	21.9	20	61	1439	16.81	32	ND	ND	32	222	22	14	10	1.50	0.15	3	55	0.82	73	0.01	3003	0.41	0.01	0.01	1	1
	89828	4	40	90	280	0.5	4	8	612	0.52	2	ND	ND	94	4	2	2	19	16.37	0.15	8	69	9.06	24	0.01	5	0.04	0.01	0.01	8	1
	89829	5	20	30	300	1.1	7	8	741	0.53	9	ND	ND	76	5	8	2	16	10.39	0.16	6	35	1.70	68	0.01	39	0.10	0.01	0.01	10	1
	89830	1	20	10	170	0.1	6	10	677	0.63	2	ND	ND	906	3	2	2	24	26.57	0.01	13	13	0.59	36	0.01	62	0.11	0.01	0.01	4	1
	89831	2	40	50	330	0.8	7	7	848	0.54	2	ND	ND	104	6	6	2	19	14.55	0.15	8	31	3.73	39	0.01	29	0.13	0.01	0.01	8	1

CERTIFIED BY : W. Pinn

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB LTD.
105 COPPER RD.
WHITEHORSE YUKON

PROJECT : W.O. 8279
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-8096
INVOICE # : NAL-90-8096
DATE ENTERED : AUG 12, 1990
FILE NAME : I8096
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	89832	9	5020	27760	68360	>100.0	6	24	2506	10.06	32	ND	8	66	583	146	67	9	3.81	0.17	3	34	0.41	44	0.01	2647	0.10	0.01	0.01	1	1
	89833	2	50	40	70	0.2	4	8	729	0.59	2	ND	ND	136	6	2	2	19	15.59	0.16	8	46	5.62	28	0.01	21	0.20	0.01	0.01	10	1
	89834	4	460	400	38920	7.0	7	32	1884	7.61	17	ND	ND	102	328	35	5	17	8.51	0.20	6	41	2.64	74	0.01	1361	0.22	0.01	0.01	1	1
	89835	6	1360	1870	70390	11.5	8	85	3016	17.99	33	ND	ND	51	589	59	9	7	3.70	0.21	3	57	0.61	73	0.01	3623	0.20	0.01	0.01	1	1
	89836	7	1330	3160	10.5%	22.1	10	82	3766	19.23	21	ND	ND	38	870	83	14	1	2.70	0.19	3	57	0.33	77	0.01	4470	0.11	0.01	0.01	29	1
	89837	2	40	30	390	0.1	9	12	960	0.77	2	ND	ND	553	18	7	2	21	23.69	0.02	11	17	1.07	38	0.01	47	0.15	0.01	0.01	2	1
	89838	8	1060	30720	68470	61.8	14	25	2839	8.96	35	5	8	286	525	96	2	8	10.99	0.21	7	33	0.40	58	0.01	2220	0.16	0.01	0.01	1	1
	89839	6	300	6140	5370	11.4	20	13	1489	2.18	25	ND	ND	265	48	27	2	32	15.66	0.14	15	30	0.98	105	0.10	391	0.68	0.01	0.01	5	1
	89840	5	810	450	66720	5.5	26	36	2449	11.84	21	ND	ND	50	556	46	2	22	2.22	0.15	8	50	0.75	74	0.10	2646	0.75	0.01	0.01	1	1
	89841	7	1360	720	10.9%	11.1	7	81	5901	20.07	27	ND	ND	39	962	88	2	2	3.82	0.18	4	55	0.27	74	0.01	4497	0.03	0.01	0.01	24	1
	89842	6	1630	2070	10.6%	18.5	9	75	7006	17.40	54	ND	ND	45	908	78	2	2	4.33	0.20	4	51	0.35	64	0.01	3669	0.06	0.01	0.01	3	1
	STD-C	16	170	110	100	1.7	50	16	234	1.30	19	ND	ND	22	9	7	2	20	0.39	0.04	8	83	0.43	116	0.01	68	0.28	0.01	0.01	5	1

NOTE: W MAY BE UNRELIABLE IN THE PRESENCE OF >5000 PPM ZN.
PB WILL PRECIPITATE AT 2 TO 3 %. ASSAYS TO FOLLOW.

CERTIFIED BY : W. Pease

:CSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

) : NORTHERN ANALYTICAL LABORATORY LTD.
105 COPPER ROAD
WHITEHORSE, Y.T.
ROJECT : CARMAC
'PE OF ANALYSIS : ASSAY

CERTIFICATE # : NAL9279
INVOICE # : 10488
DATE ENTERED : 90-08-22
FILE NAME : NAL8279
PAGE # : 1

E X SAMPLE NAME	% Pb	% Zn
89801	11.90	6.18
89810		1.02
89822		14.90
89823	2.72	4.66
89824		10.80
89826		14.20
89827		3.10
89832	17.40	9.04
89834		4.94
89835		8.98
89836		14.20
89838	5.68	8.10
89840		7.96
89841		15.10
89842		14.08
89851		17.90
89852	8.40	8.40
89854	11.00	10.30
89855		1.20

CERTIFIED BY : Moorbach

Northern Analytical Laboratories ltd.

August 15,1990

Work Order # 08289

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 2T6

File # 08289a

Assay Certificate For Samples Provided

Sample	ppb Au
88251	<10
88252	<10
88253	<10
88254	24
88255	179
88256	169
88257	463
88258	11
88259	<10
88260	<10
88261	<10
88262	<10
88263	<10
88264	14
88265	<10
88266	12
88267	<10
88268	<10
88269	<10
88270	16
88271	<10
88272	<10
88273	<10
88274	11
88275	<10
88276	38
88277	24
88278	<10
88279	<10
88280	<10

Au -- 15g Fire Assay/AAS

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

Northern Analytical Laboratories ltd.

August 15,1990

Work Order # 08289

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 2T6

File # 08289b

Assay Certificate For Samples Provided

Sample	ppb Au
88281	<10
88282	<10
88283	15
88284	24
88285	<10
88286	<10
88287	11
88288	<10
88289	<10
88290	<10
88291	11
89843	<10
89844	21
89845	10
89846	111
89847	<10
89848	<10
89849	<10
89850	<10

Au -- 15g Fire Assay/AAS

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

Northern Analytical Laboratories ltd.

August 17,1990

Work Order # 08289

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 3A4

Assay Certificate For Samples Provided

Sample	g/t Ag
89846	128.8
88254	34.7
88255	119.5
88256	62.5
88257	124.4
88262	583.0
88276	169.1
88277	93.2

Ag -- 1AT Fire Assay/Grav

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB
105 COPPER RD.
WHITEHORSE YUKON

PROJECT : WO# 8289
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-815C
INVOICE # : NAL-815C
DATE ENTERED : AUG 17 1990
FILE NAME : I815C
PAGE # : 1

PREFIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	STDS	18	726	479	457	17.4	212	241	876	3.13	294	N\A	58	576	662	144	793	412	102	0.34	2.47	996	62	0.42	234	0.12	542	1.41	0.09	0.01	289	47
	89843	9	7	30	6	0.1	4	2	45	0.24	5	N\A	ND	ND	4	1	6	19	6	0.02	0.05	5	57	0.01	31	0.01	20	0.04	0.01	0.01	11	2
	89844	9	12	45	217	1.5	49	1	1527	2.88	159	N\A	ND	ND	87	2	9	4	25	1.59	0.04	1	79	0.80	64	0.01	590	0.10	0.01	0.01	15	2
	89845	1	15	1	53	0.1	1	1	711	1.20	2	N\A	ND	ND	501	1	2	2	1	20.15	0.01	1	28	2.82	156	0.01	70	0.23	0.01	0.01	1	1
A	89846	14	2220	33825	53939	>100	17	12	4101	19.50	886	N\A	ND	16	55	415	124	18	1	2.45	0.04	2	100	0.22	79	0.01	6926	0.08	0.01	0.01	N\A	1
A	89847	10	1586	1848	22282	13.4	29	74	1372	22.26	13	N\A	ND	ND	8	190	23	5	2	0.41	0.07	2	113	0.38	104	0.04	4467	0.20	0.01	0.01	N\A	1
	89848	12	2120	2039	3276	11.5	37	111	617	24.35	16	N\A	ND	ND	5	51	17	4	2	0.26	0.08	3	122	0.24	113	0.03	4624	0.22	0.01	0.01	33	1
	89849	6	126	170	251	1.9	40	10	631	4.60	20	N\A	ND	ND	28	2	11	2	73	0.63	0.05	15	84	2.04	176	0.31	394	3.04	0.03	0.01	13	4
	89850	6	65	101	117	1.5	42	11	397	3.84	8	N\A	ND	ND	11	1	2	2	52	0.37	0.03	11	84	1.68	153	0.24	281	2.40	0.02	0.01	6	3
	88251	7	58	52	64	1.3	32	12	264	2.67	14	N\A	ND	ND	54	1	9	2	46	0.82	0.04	11	68	0.90	167	0.15	300	2.05	0.04	0.01	10	3
	88252	72	60	46	70	1.4	34	7	395	3.16	24	N\A	ND	ND	66	1	11	2	68	0.90	0.02	9	71	1.22	206	0.23	300	2.76	0.05	0.01	13	4
	88253	8	26	18	123	0.4	18	6	258	1.40	6	N\A	ND	ND	30	1	8	15	28	0.52	0.03	9	50	0.73	189	0.10	87	1.37	0.02	0.01	3	3
A	88254	15	343	20059	1207	38.1	11	4	197	3.71	685	N\A	ND	7	21	13	43	15	17	0.41	0.23	8	56	0.31	114	0.03	249	0.58	0.01	0.01	N\A	2
A	88255	28	619	34645	1231	>100	7	1	138	8.04	2001	N\A	ND	15	5	26	126	20	6	0.04	0.02	7	61	0.09	276	0.01	148	0.22	0.01	0.01	N\A	1
A	88256	16	381	20210	627	63.5	6	4	216	2.66	2247	N\A	ND	9	3	14	54	16	6	0.04	0.02	18	39	0.03	336	0.01	137	0.22	0.01	0.01	N\A	2
A	88257	16	302	39788	627	>100	8	2	76	2.66	2574	N\A	ND	16	3	10	97	16	7	0.04	0.04	14	39	0.03	213	0.01	162	0.18	0.01	0.01	N\A	1
	88258	9	415	4221	1711	7.5	23	9	494	5.31	74	N\A	ND	ND	6	15	12	2	23	0.28	0.04	15	58	0.99	116	0.04	148	1.05	0.01	0.01	12	2
	88259	1	48	121	826	0.5	5	2	973	1.17	2	N\A	ND	ND	143	7	2	2	1	15.91	0.01	1	42	4.47	46	0.01	83	0.22	0.01	0.01	1	1
	88260	1	48	45	639	0.1	7	2	588	1.08	3	N\A	ND	ND	382	9	2	2	8	16.47	0.01	4	27	1.36	58	0.05	5	0.47	0.01	0.01	1	1
	88261	1	32	17	604	0.1	3	3	490	0.65	2	N\A	ND	ND	517	8	2	2	1	20.65	0.01	1	12	0.82	24	0.02	5	0.22	0.01	0.01	1	1
A	88262	10	21234	36795	13193	>100	3	1	377	5.93	100	N\A	ND	12	8	122	286	73	1	0.11	0.01	1	44	0.01	37	0.01	2313	0.10	0.01	0.02	N\A	1
	88263	3	184	2179	603	4.3	21	11	406	2.96	24	N\A	ND	ND	142	6	15	5	42	2.00	0.25	6	35	1.32	156	0.21	150	2.22	0.04	0.01	14	3
	88264	2	185	291	275	1.1	24	15	481	5.10	33	N\A	ND	ND	121	1	9	2	39	1.41	0.26	4	69	1.10	96	0.23	614	2.75	0.07	0.02	14	3
	88265	6	169	66	222	1.0	52	16	743	6.15	29	N\A	ND	ND	98	2	8	2	64	1.16	0.20	6	90	1.96	143	0.33	383	3.31	0.05	0.02	14	4
	88266	1	116	89	157	1.9	40	24	643	5.51	35	N\A	ND	ND	172	3	17	2	71	2.87	0.23	5	51	1.92	181	0.44	340	4.43	0.09	0.03	12	4
	88267	3	31	49	140	0.5	21	9	328	2.01	4	N\A	ND	ND	62	1	11	5	23	0.41	0.04	12	41	0.78	180	0.13	65	1.50	0.02	0.01	1	3
	88268	5	138	142	5584	1.0	38	9	514	3.64	13	N\A	ND	ND	39	48	7	2	43	0.64	0.06	7	60	1.09	105	0.17	409	2.00	0.03	0.01	37	3
	88269	1	28	20	603	0.1	3	4	650	0.69	2	N\A	ND	ND	129	8	2	2	1	13.30	0.01	2	45	5.46	67	0.01	5	0.54	0.01	0.01	1	1
	88270	3	106	61	1669	1.0	33	13	456	3.25	13	N\A	ND	ND	55	16	3	2	52	0.65	0.06	14	53	1.13	135	0.19	167	1.92	0.02	0.01	13	4
	88271	3	57	46	158	1.7	49	9	651	3.81	12	N\A	ND	ND	50	1	13	2	77	1.11	0.06	21	77	1.72	169	0.34	193	3.14	0.04	0.01	8	4
A	88272	4	1096	651	67877	4.7	19	55	2869	16.58	19	N\A	ND	ND	28	544	50	76	21	1.35	0.06	6	79	0.62	81	0.05	3730	0.64	0.01	0.02	N\A	3
	88273	4	97	31	327	1.9	17	19	1135	5.47	15	N\A	ND	ND	89	5	7	2	66	1.65	0.24	5	45	1.61	164	0.37	316	3.60	0.07	0.01	23	4
	88274	10	165	4931	6920	7.7	17	17	380	5.77	115	N\A	ND	ND	4	57	13	23	5	0.77	0.01	1	66	0.11	29	0.01	1315	0.11	0.01	0.01	39	2
	88275	6	157	108	1892	1.8	14	15	678	5.53	212	N\A	ND	ND	49	17	7	2	4	5.26	0.19	3	56	1.03	40	0.01	1447	0.20	0.01	0.01	15	2
A	88276	10	1396	27273	98440	>100	8	2	2215	17.83	34	N\A	ND	12	175	801	210	8	1	2.54	0.08	1	76	0.05	68	0.01	5029	0.22	0.01	0.01	N\A	1
A	88277	9	959	38270	71263	69.5	6	3	1845	12.62	10	N\A	ND	12	404	565	139	11	1	7.69	0.07	3	53	0.54	53	0.01	3039	0.24	0.01	0.01	N\A	1
	88278	1	15	308	87	0.1	1	2	282	0.60	2	N\A	ND	ND	1198	1	2	2	1	25.52	0.01	1	7	0.57	11	0.01	19	0.19	0.01	0.01	1	1
	88279	6	40	266	105	1.1	20	8	192	1.36	8	N\A	ND	ND	44	2	9	18	24	0.67	0.05	5	56	0.48	122	0.06	126	0.91	0.02	0.01	5	3
	88280	5	92	319	140	1.7	28	9	646	2.70	16	N\A	ND	ND	68	2	13	4	42	2.20	0.20	10	58	1.00	157	0.08	329	1.62	0.03	0.01	9	4
	88281	10	191	4534	234	8.5	11	5	415	1.76	60	N\A	ND	ND	11	3	10	21	10	0.90	0.04	8	55	0.16	83	0.01	283	0.28	0.01	0.01	5	2

CERTIFIED BY : W. Pong

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3H1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB
105 COPPER RD.
WHITEHORSE YUKON

PROJECT : WO# 8289
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-815C
INVOICE # : NAL-815C
DATE ENTERED : AUG 17 1990
FILE NAME : I815C
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	88282	15	48	70	592	1.4	23	8	462	2.30	16	N\A	ND	ND	39	1	8	9	26	1.46	0.10	18	55	0.79	92	0.12	199	1.16	0.01	0.01	15	3
	88283	8	93	587	93	1.4	30	8	350	2.57	6	N\A	ND	ND	35	1	2	8	41	0.66	0.04	8	55	0.80	87	0.15	249	1.59	0.02	0.01	7	3
	88284	4	62	62	76	0.1	39	14	397	3.14	17	N\A	ND	ND	83	1	5	8	37	0.63	0.05	12	49	0.95	85	0.19	263	1.91	0.02	0.01	4	4
	88285	5	51	82	52	0.5	31	10	305	2.80	13	N\A	ND	ND	62	1	4	6	36	0.37	0.02	11	59	1.12	109	0.14	238	1.97	0.02	0.01	5	4
	88286	2	72	27	64	0.1	37	10	519	2.94	4	N\A	ND	ND	266	2	4	2	32	7.88	0.06	13	45	1.11	83	0.15	276	1.91	0.02	0.01	1	3
	88287	3	56	58	591	0.2	27	8	824	2.92	2	N\A	ND	ND	209	6	2	2	32	7.25	0.21	5	44	1.28	77	0.17	197	1.64	0.04	0.01	1	3
	88288	2	95	19	64	0.3	45	14	529	4.43	7	N\A	ND	ND	61	1	8	2	38	1.42	0.25	3	54	1.51	102	0.22	414	2.32	0.04	0.01	2	3
	88289	1	102	21	163	1.2	59	26	511	6.18	8	N\A	ND	ND	41	1	11	2	49	0.68	0.14	6	63	1.60	234	0.50	159	2.72	0.02	0.01	4	3
	88290	2	181	31	88	1.5	81	33	636	5.88	25	N\A	ND	ND	28	1	16	8	35	1.61	0.19	9	92	1.30	108	0.34	423	1.58	0.01	0.01	3	3
	88291	2	160	16	87	1.0	89	29	662	5.76	7	N\A	ND	ND	7	1	8	2	32	0.36	0.04	10	163	1.76	355	0.50	177	2.43	0.02	0.01	8	3
	STD-D	2	135	122	557	3.6	3	1	73	0.96	15	N\A	ND	ND	10	2	3	22	6	0.10	0.03	7	8	0.03	209	0.01	189	0.20	0.02	0.01	8	1

NOTES: BORON IS NOT RELIABLE IN THE PRESENCE OF HIGH SULFIDES.
(A) INDICATES THAT THE SAMPLE WILL BE ASSAYED FOR CU,PB OR, ZN >1% AND AG >30 PPM.
TYPICAL SOLUBILITY LIMITS FOR PB IS 2%, ZN 6-10% CU 6-10% AND AG 70 TO 100 PPM (IN THESE DIGESTS).

CERTIFIED BY : W. Pease

R SSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

O : NORTHERN ANALYTICAL LABORATORY LTD.
105 COPPER ROAD
WHITEHORSE, Y.T.

ROJECT :

YPE OF ANALYSIS : ASSAY

CERTIFICATE # : W08289
INVOICE # : 10514
DATE ENTERED : 90-08-22
FILE NAME : NALW08289
PAGE # : 1

E X	SAMPLE NAME	% Cu	% Pb	% Zn
	89846		7.32	6.16
	89847			2.36
	88254		2.02	
	88255		6.40	
	88256		1.96	
	88257		4.80	
	88262	2.42	40.80	1.24
	88272			7.70
	88276		19.70	11.40
	88277		13.60	8.00

CERTIFIED BY : J. Rossbach

Northern Analytical Laboratories ltd.

August 17,1990

Work Order # 08304

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 3A4

File # 08304a

Assay Certificate For Samples Provided

Sample	ppb Au
89851	10
89852	<10
89853	<10
89854	49
89855	31
88292	<10
88293	<10
88294	<10
88295	33
88296	46
88297	<10
88298	<10
88299	<10
88300	<10
88301	<10
88302	<10
88303	<10
88304	<10
88305	14
88306	<10
88307	<10
88308	<10
88309	<10
88310	34
88311	<10
88312	11
88313	13
88314	19
88315	166
88316	14
88317	65

Au -- 15g Fire Assay/AAS

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

Northern Analytical Laboratories ltd.

August 17,1990

Work Order # 08304

File # 08304b

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 3A4

Assay Certificate For Samples Provided

Sample	ppb Au
88318	10
88319	<10
88320	13
88321	14
88322	31
88323	60
88324	17
88325	13
90-W1	<10
90-W2	<10

Au -- 15g Fire Assay/AAS

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

Northern Analytical Laboratories ltd.

August 17,1990

Work Order # 08304

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 3A4

File # 08304c

Assay Certificate For Samples Provided

Sample	g/t Ag
89855	237.9

Ag -- 1AT Fire Assay/Grav

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB LTD
105 COPPER RD.
WHITEHORSE YUKON
PROJECT : WO# 08304
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-817A1
INVOICE # : NAL-817A
DATE ENTERED : AUG 17, 1990
FILE NAME : I817A1
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	STDS	20	759	491	515	16.4	218	259	924	3.38	303	5	60	635	695	154	780	441	108	0.37	2.63	1055	59	0.43	257	0.14	732	1.40	0.09	0.01	275	50
	88292	6	97	21	81	0.3	14	9	200	2.37	4	5	ND	6	8	1	2	12	20	0.04	0.11	12	53	0.30	209	0.01	311	0.37	0.01	0.01	5	2
	88293	9	5	4	30	0.1	2	1	10	0.17	2	5	ND	ND	1	1	2	13	5	0.01	0.02	1	57	0.01	23	0.01	5	0.01	0.01	0.01	1	1
	88294	11	197	59	201	2.3	236	36	483	8.29	29	5	ND	ND	130	5	16	2	108	1.96	0.21	7	93	1.74	96	0.17	1661	4.46	0.08	0.01	8	5
	88295	9	12	8	25	0.1	5	4	33	0.54	8	5	ND	ND	5	1	2	16	7	0.08	0.01	1	56	0.05	222	0.01	74	0.13	0.01	0.01	1	1
	88296	3	129	54	632	0.6	21	3	2800	3.01	3223	5	ND	ND	119	7	7	2	22	8.67	0.25	12	24	0.47	74	0.01	869	0.46	0.01	0.01	1	1
	88297	3	152	32	86	1.0	17	21	771	5.14	48	5	ND	ND	120	2	4	2	59	2.32	0.36	11	41	1.12	87	0.38	904	1.30	0.03	0.01	4	3
	88298	2	152	44	70	1.2	25	23	842	5.17	24	5	ND	ND	127	1	5	2	70	2.63	0.54	12	45	1.10	82	0.46	942	1.30	0.03	0.03	7	3
	88299	3	147	38	86	0.7	15	25	941	4.70	19	5	ND	ND	171	1	3	2	70	3.00	0.52	14	41	1.15	96	0.42	804	1.64	0.05	0.02	3	3
	88300	3	87	44	60	0.1	22	6	2314	2.46	4	5	5	ND	110	2	2	2	55	7.88	0.19	9	41	2.14	71	0.11	388	1.12	0.01	0.01	1	3
	88301	3	28	46	111	0.6	14	20	564	5.75	30	5	ND	ND	66	1	2	2	68	1.28	0.37	14	39	1.12	65	0.37	1658	0.91	0.02	0.01	1	3
	88302	5	67	1709	1653	8.4	35	8	2344	2.56	82	5	ND	ND	95	9	15	2	56	7.73	0.17	9	48	2.45	68	0.08	763	1.32	0.01	0.02	3	2
	88303	3	178	50	105	1.2	33	27	676	5.19	23	5	ND	ND	97	2	12	2	65	1.43	0.11	13	70	1.49	108	0.29	792	3.11	0.07	0.01	4	3
	88304	2	200	89	187	2.4	28	30	931	6.00	63	5	ND	ND	107	3	5	2	50	1.79	0.15	11	58	1.40	89	0.25	1104	2.33	0.06	0.01	4	3
	88305	3	46	18	96	1.4	16	13	526	5.42	18	5	ND	ND	41	2	4	2	69	1.43	0.36	7	41	1.73	185	0.51	443	2.51	0.04	0.01	4	3
	88306	5	101	17	65	0.9	23	20	348	3.94	15	5	ND	ND	34	1	2	9	37	0.73	0.11	5	52	0.86	177	0.40	484	1.49	0.02	0.01	1	2
	88307	2	73	20	95	1.3	73	21	407	5.67	14	5	ND	ND	71	2	5	2	52	1.24	0.30	5	76	1.88	189	0.48	408	3.65	0.05	0.01	5	2
	88308	3	91	14	146	0.7	74	24	369	6.46	3	5	ND	ND	15	1	5	2	49	0.21	0.03	4	68	2.31	467	0.45	156	3.65	0.02	0.01	2	2
	88309	3	64	17	105	0.6	83	23	324	5.83	12	5	ND	ND	20	1	5	2	62	0.57	0.06	4	71	1.87	338	0.69	97	3.31	0.04	0.01	8	2
	88310	2	152	37	86	1.4	23	27	1458	6.67	25	5	ND	ND	90	2	20	2	66	5.70	0.28	34	44	2.36	91	0.01	1322	1.09	0.01	0.01	5	3
	88311	1	46	280	71	1.5	4	1	941	2.19	12	5	ND	ND	264	1	2	2	7	16.68	0.05	9	48	6.33	174	0.01	39	0.14	0.01	0.01	1	1
	88312	1	83	867	788	1.0	8	1	977	3.26	18	5	ND	ND	253	7	2	2	8	14.38	0.09	15	50	5.43	166	0.01	474	0.18	0.01	0.01	1	1
	88313	3	210	2004	1653	4.7	9	10	1256	4.79	141	5	ND	ND	92	17	12	2	12	5.30	0.32	47	33	1.86	81	0.01	1117	0.34	0.01	0.01	10	1
	88314	2	136	119	237	1.8	6	13	1235	5.13	94	5	ND	ND	69	4	10	2	13	4.25	0.39	49	29	1.75	87	0.01	1266	0.87	0.01	0.01	9	2
	88315	1	109	41	66	0.2	3	8	921	4.81	26	5	ND	ND	122	3	10	2	5	7.38	0.31	48	31	2.42	95	0.01	805	0.63	0.01	0.01	1	1
	88316	4	8	8	15	0.1	1	2	112	0.38	2	5	ND	ND	6	1	2	25	6	0.31	0.04	3	32	0.11	31	0.01	14	0.10	0.01	0.01	1	1
	88317	4	185	17	101	1.3	6	5	352	1.79	10	5	ND	ND	16	1	2	15	38	0.90	0.13	9	38	0.55	731	0.16	156	0.59	0.01	0.01	1	2
	88318	6	132	426	359	1.7	24	14	1187	3.16	15	5	ND	ND	17	3	2	8	55	0.90	0.20	28	38	0.79	416	0.07	211	0.91	0.01	0.01	3	3
	88319	2	105	498	621	1.9	50	18	639	3.16	33	5	ND	ND	54	7	5	2	56	1.59	0.15	5	74	1.30	42	0.21	342	1.25	0.03	0.01	11	2
	88320	3	136	74	116	1.1	37	20	473	4.46	15	5	ND	ND	128	2	5	2	58	1.81	0.33	7	37	1.10	54	0.31	606	2.28	0.07	0.03	11	2
	88321	2	266	994	581	15.8	49	26	907	6.70	28	5	ND	ND	47	6	2	70	47	1.01	0.12	27	59	1.09	122	0.20	879	1.94	0.02	0.01	9	2
	88322	3	214	1670	3568	6.5	41	17	805	4.43	26	5	ND	ND	110	36	14	50	52	1.96	0.15	21	53	1.30	116	0.21	664	2.51	0.04	0.03	30	3
	88323	6	381	10482	11886	18.3	74	26	1276	7.17	72	5	ND	5	39	101	38	2	77	1.40	0.17	7	137	1.74	69	0.24	1539	1.42	0.02	0.01	N\A	3
	88324	3	178	218	293	2.0	37	18	537	4.74	21	5	ND	ND	119	3	7	3	55	1.82	0.29	7	41	1.10	65	0.33	796	2.26	0.06	0.03	11	3
	88325	2	117	1040	480	2.1	29	14	485	5.00	27	5	ND	ND	46	5	6	7	46	1.04	0.30	20	49	1.44	160	0.30	495	2.33	0.03	0.01	10	2
	89851	7	14	25	162	0.1	3	1	55	0.98	74	5	ND	ND	9	1	2	29	6	0.03	0.01	5	43	0.02	209	0.01	52	0.10	0.01	0.01	1	1
	89852	6	88	18	101	0.1	18	7	1367	2.56	5	5	ND	ND	117	1	2	7	42	0.19	0.06	7	56	0.16	1082	0.01	91	2.29	0.01	0.05	1	3
	89853	14	56	11	81	0.1	47	27	75	3.27	10	5	ND	ND	2	1	7	18	5	0.01	0.01	1	63	0.02	103	0.01	878	0.06	0.01	0.01	1	1
	89854	10	14	11	71	0.8	36	56	45	4.26	14	5	ND	ND	1	1	2	13	3	0.01	0.01	1	57	0.01	73	0.01	1406	0.04	0.01	0.01	1	1
	89855	6	394	12567	35089	264.8	24	29	1763	11.79	162	5	ND	ND	36	297	35	605	21	1.24	0.05	28	70	0.92	62	0.01	2961	0.78	0.01	0.01	N\A	1

CERTIFIED BY : _____

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB LTD
105 COPPER RD.
WHITEHORSE YUKON
PROJECT : WO# 08304
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-817A1
INVOICE # : NAL-817A
DATE ENTERED : AUG 17, 1990
FILE NAME : I817A1
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	90-W1	4	83	14	69	0.1	53	18	729	3.73	43	5	ND	ND	16	3	8	12	48	0.51	0.23	17	32	0.56	870	0.05	31	0.93	0.01	0.01	3	3
	90-W2	1	23	23	106	0.1	20	5	205	1.42	24	5	ND	ND	70	1	11	26	19	2.23	0.10	7	19	0.54	167	0.03	77	0.57	0.01	0.01	1	1

CERTIFIED BY : W. Pearl

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

D : NORTHERN ANALYTICAL LABORATORY LTD.
105 COPPER ROAD
WHITEHORSE, Y.T.

ROJECT :

/PE OF ANALYSIS : ASSAY

CERTIFICATE # : W080304
INVOICE # : 10515
DATE ENTERED : 90-08-22
FILE NAME : NAL80304
PAGE # : 1

E X	SAMPLE NAME	% Pb	% Zn
	88323	1.04	1.12
	89855	1.25	3.22

CERTIFIED BY : Rossbach

Northern Analytical Laboratories ltd.

August 30,1990

Work Order # 08336

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 3A4

File # 08336a

Assay Certificate For Samples Provided

Sample	ppb Au
88326	<10
88327	270
88328	32
88329	246
88330	51
88331	56
88332	26
88333	855
88334	197
88335	942
88336	6293
88337	602
88338	1927
88339	3362
88340	36
88341	33
88342	<10
88343	24
88344	<10
88345	12
88346	45
88347	<10
88348	28
88349	50
88350	18
88351	36
88352	71
88353	15
88354	34
88355	37

Au -- 15g Fire Assay/AAS

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

Northern Analytical Laboratories ltd.

August 30,1990

Work Order # 08336

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 3A4

File # 08336b

Assay Certificate For Samples Provided

Sample	ppb Au
88356	36
88357	31
88358	43
88359	10
88360	16
88361	37
88362	31
88363	25
88364	45
88365	72
88366	21
88367	33
88368	<10
88369	<10
88370	<10
88371	52
88372	<10
88373	<10
88374	13
88375	21
88376	33
88377	14
88378	362
88379	19
88380	41
88381	11
88382	34
88383	17
88384	58
88385	52

Au -- 15g Fire Assay/AAS

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

Northern Analytical Laboratories ltd.

August 30,1990

Work Order # 08336

File # 08336c

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 3A4

Assay Certificate For Samples Provided

Sample	ppb Au
88386	131
88387	144
88388	115
88389	274
88390	869
88391	231
88392	129
88393	48
88394	142
88395	1465
88396	27
88397	283
89856	17
89857	32
89858	10
89859	37
89860	116
89861	40
89862	42
89863	37
89864	90
89865	24
89866	<10
89867	13
89868	265
89869	<10
89870	228
89871	<10

Au -- 15g Fire Assay/AAS

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

Northern Analytical Laboratories ltd.

August 30,1990

Work Order # 08336

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 3A4

File # 08336d

Assay Certificate For Samples Provided

Sample	ppb Au
90 - W3	18

Au -- 15g Fire Assay/AAS

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

Northern
Analytical
Laboratories ltd.

August 30,1990

Work Order # 08336

File # 08336e

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 3A4

Assay Certificate For Samples Provided

Sample	g/t Au
88395	1.06
88336	6.24
88338	2.16
88339	3.67

Au -- 1AT Fire Assay/Grav.

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

Northern Analytical Laboratories ltd.

September 6,1990

Work Order # 08336

File # 08336f

Carmac Resources
860 - 625 Howe St.
Vancouver, B.C.
V6C 3A4

Assay Certificate For Samples Provided

Sample	g/t Ag
88333	2100.7
88334	32.6
88335	975.1
88337	90.9
88338	762.9
88339	2641.4
88349	48.0
88352	128.9
88364	30.1
88365	57.6
88367	35.0
88379	4.3
88389	25.7
88390	1134.5
88395	52.5
89865	451.2
89870	23.0

Ag -- 1AT Fire Assay/Grav

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB LTD.
105 COPPER RD.
WHITEHORSE YUKON

PROJECT : WO#8336
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-905A
INVOICE # : NA90-905A
DATE ENTERED : SEPT 5, 1990
FILE NAME : I905A1
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	STDS	23	821	501	521	18.1	242	302	983	3.56	341	N\A	59	638	750	169	901	460	117	0.39	2.24	1104	88	0.47	252	0.14	626	1.55	0.10	0.01	302	54
	88326	11	70	19	223	0.2	62	9	197	12.42	47	N\A	ND	ND	8	2	54	2	42	0.07	0.07	9	164	0.66	20	0.02	3028	0.71	0.01	0.01	19	2
	88327	7	48	39	157	2.6	68	10	1759	13.18	499	N\A	ND	ND	273	2	106	2	23	6.70	0.05	17	116	2.41	24	0.01	2991	0.16	0.01	0.01	14	2
	88328	1	23	1	28	1.9	15	4	1055	5.18	28	N\A	ND	ND	363	1	2	2	8	23.69	0.01	10	33	0.99	62	0.01	872	0.03	0.01	0.01	1	2
	88329	5	61	28	137	1.8	40	10	2947	20.15	426	N\A	ND	ND	157	2	109	2	15	5.16	0.01	9	128	2.75	21	0.01	4681	0.10	0.01	0.01	14	2
	88330	7	1380	20	121	3.0	118	48	545	14.52	22	N\A	ND	ND	51	2	2	2	5	2.24	0.04	14	75	0.45	28	0.01	2324	1.35	0.06	0.01	11	11
	88331	16	725	21	106	2.2	182	136	326	28.46	28	N\A	ND	5	9	2	2	2	2	0.47	0.01	16	110	0.13	25	0.01	5059	0.06	0.01	0.01	20	1
	88332	14	66	6	27	1.1	19	10	107	2.16	11	N\A	ND	ND	4	2	12	7	6	0.12	0.01	3	38	0.04	104	0.01	226	0.06	0.01	0.01	1	1
	88333	12	1011	>2%	23770	609.1	46	1	28	6.19	63861	N\A	7	41	2	330	29815	2	2	0.05	0.01	1	24	0.02	15	0.01	1673	0.02	0.01	0.01	N\A	1
	88334	11	39	2644	828	49.2	11	2	20	1.77	12692	N\A	ND	5	3	13	2705	6	3	0.01	0.01	3	21	0.01	35	0.01	359	0.05	0.01	0.01	1	1
	88335	13	327	11994	8922	409.3	23	2	22	3.40	30793	N\A	ND	16	2	128	11728	2	3	0.01	0.01	2	21	0.01	42	0.01	795	0.09	0.01	0.01	1	1
	88336	9	41	1160	79	16.6	6	1	21	1.80	7350	N\A	5	ND	2	2	414	17	6	0.01	0.01	2	30	0.01	77	0.01	233	0.08	0.01	0.01	1	1
	88337	17	49	>2%	1407	103.5	13	3	20	2.12	1291	N\A	ND	28	5	21	3370	22	7	0.01	0.02	8	46	0.01	31	0.01	671	0.06	0.01	0.01	1	1
	88338	13	563	>2%	5215	626.0	16	2	31	4.53	17160	N\A	ND	21	7	64	6063	11	8	0.04	0.04	6	34	0.01	29	0.01	968	0.06	0.01	0.01	1	1
	88339	11	1512	>2%	33090	518.5	37	1	22	7.21	57755	N\A	ND	59	3	363	25629	2	1	0.01	0.01	1	32	0.01	20	0.01	1949	0.01	0.01	0.01	N\A	1
	88340	10	89	82	69	27.2	26	30	310	4.21	378	N\A	ND	ND	35	1	282	24	93	1.53	0.23	11	16	1.07	52	0.27	405	1.67	0.05	0.01	1	3
	88341	6	158	4333	1649	19.4	41	33	544	5.11	118	N\A	ND	6	32	16	50	17	90	1.33	0.21	12	22	1.26	50	0.23	729	1.56	0.04	0.01	1	3
	88342	5	225	2558	1327	16.2	33	24	658	5.26	95	N\A	ND	ND	37	16	24	22	111	1.21	0.23	16	18	1.86	52	0.32	580	1.83	0.04	0.01	2	3
	88343	4	156	2849	416	15.0	20	15	365	3.87	104	N\A	ND	ND	44	4	15	10	80	0.77	0.13	10	20	0.93	90	0.25	296	1.18	0.03	0.01	3	2
	88344	4	226	4685	647	19.3	34	17	608	6.15	250	N\A	ND	ND	35	10	19	13	141	0.93	0.17	14	47	1.95	82	0.35	444	1.64	0.02	0.01	2	4
	88345	2	56	117	230	6.0	61	16	445	2.67	8	N\A	ND	ND	42	2	2	8	62	1.60	0.18	7	33	1.11	53	0.32	150	1.35	0.04	0.01	1	2
	88346	3	73	118	209	6.3	64	22	551	4.21	22	N\A	ND	ND	35	1	10	17	86	0.93	0.10	29	41	1.41	279	0.35	184	2.57	0.04	0.01	1	3
	88347	2	122	289	457	6.8	88	18	640	4.12	41	N\A	ND	ND	126	6	8	11	58	1.58	0.06	32	29	1.03	134	0.27	321	3.25	0.08	0.02	1	3
	88348	5	263	5752	8484	19.8	40	31	1499	6.15	202	N\A	ND	ND	92	75	20	2	79	2.72	0.26	12	29	1.71	45	0.25	1126	2.06	0.06	0.01	1	3
	88349	9	339	>2%	1946	65.1	16	6	235	8.41	1762	N\A	ND	8	11	18	55	2	57	0.18	0.07	6	19	0.59	64	0.09	643	0.56	0.01	0.01	2	2
	88350	2	139	217	246	6.2	3	16	885	6.78	35	N\A	ND	ND	19	1	2	4	117	0.68	0.07	3	13	2.31	160	0.89	240	2.75	0.02	0.01	1	3
	88351	5	221	1280	616	21.8	23	17	1429	6.36	78	N\A	ND	ND	47	5	2	34	81	0.94	0.06	10	18	2.09	80	0.50	436	2.00	0.03	0.01	2	3
	88352	6	589	14269	12100	150.2	20	28	1496	12.31	737	N\A	ND	ND	20	103	21	216	57	0.37	0.05	12	23	1.22	12	0.38	2110	1.15	0.01	0.01	1	2
	88353	3	214	2680	1026	17.3	37	26	1385	7.25	114	N\A	ND	ND	59	12	2	16	132	2.03	0.05	6	15	2.37	39	0.73	879	2.25	0.03	0.01	1	4
	88354	1	76	109	757	5.7	33	10	830	1.95	26	N\A	ND	ND	253	13	2	2	21	11.15	0.05	42	6	0.66	200	0.10	256	2.17	0.07	0.01	1	3
	88355	1	86	49	1664	5.6	31	13	1003	1.88	25	N\A	ND	ND	229	28	2	2	19	11.77	0.03	33	5	0.65	380	0.06	177	1.21	0.02	0.01	1	3
	88356	3	580	419	42090	11.0	29	34	3006	10.56	366	N\A	ND	ND	45	384	31	2	30	2.92	0.04	28	32	1.10	28	0.03	2335	0.87	0.01	0.01	N\A	2
	88357	3	447	386	31970	11.2	39	33	3212	8.61	25	N\A	ND	ND	78	296	24	2	41	3.88	0.05	39	27	1.34	29	0.06	1509	1.29	0.01	0.01	N\A	2
	88358	4	260	2535	3972	26.3	15	23	1051	9.19	334	N\A	ND	ND	47	41	7	30	62	1.25	0.06	19	22	1.32	35	0.25	676	1.48	0.02	0.01	1	2
	88359	2	115	178	3635	6.6	83	21	991	4.41	62	N\A	ND	ND	101	35	10	19	61	2.99	0.18	10	26	1.73	59	0.25	674	1.81	0.04	0.01	1	2
	88360	3	421	1109	24830	19.5	44	29	2663	8.67	214	N\A	ND	ND	81	238	24	13	42	4.21	0.06	47	21	1.36	31	0.08	1836	1.30	0.01	0.01	N\A	3
	88361	5	525	2171	47510	27.4	35	48	3146	12.62	702	N\A	ND	ND	49	430	38	16	28	2.77	0.04	32	21	1.06	14	0.02	3078	0.85	0.01	0.01	N\A	2
	88362	5	428	572	46820	19.0	26	56	2993	13.50	1105	N\A	ND	ND	64	422	41	2	22	4.50	0.05	18	16	0.95	17	0.01	3500	0.66	0.01	0.01	N\A	2
	88363	3	117	120	2216	6.8	45	11	1425	3.53	72	N\A	ND	ND	99	21	26	19	36	4.69	0.05	29	10	1.20	48	0.08	520	1.41	0.01	0.01	3	3
	88364	4	220	1695	18370	36.4	32	23	2836	7.01	242	N\A	ND	ND	70	180	33	51	46	3.60	0.05	17	12	1.49	23	0.16	1646	1.19	0.01	0.01	N\A	3

CERTIFIED BY : _____

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB LTD.
105 COPPER RD.
WHITEHORSE YUKON
PROJECT : WO#8336
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-905A
INVOICE # : NA90-905A
DATE ENTERED : SEPT 5, 1990
FILE NAME : I905A1
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	STD-B	27	137	115	241	4.7	15	3	142	0.72	29	N\A	ND	ND	17	3	7	19	10	0.55	0.01	9	16	0.26	279	0.02	75	0.29	0.01	0.01	20	1
	88365	6	328	3562	8058	65.4	24	15	1629	8.54	376	N\A	ND	ND	29	89	26	81	38	1.39	0.05	33	24	1.30	35	0.01	678	1.11	0.01	0.02	20	2
	88366	12	250	913	5259	17.7	18	13	1447	6.42	622	N\A	ND	ND	14	51	23	26	43	0.71	0.05	33	23	1.43	151	0.01	213	1.12	0.01	0.01	1	2
	88367	12	167	4949	3354	47.1	27	20	1705	7.08	608	N\A	ND	ND	47	31	12	72	42	2.18	0.06	36	19	1.11	146	0.08	222	1.13	0.01	0.02	1	2
	88368	6	1083	4307	75970	23.4	20	71	3564	15.87	136	N\A	ND	ND	88	727	56	2	24	5.20	0.10	9	20	1.11	49	0.12	2886	1.07	0.01	0.01	N\A	2
	88369	2	137	172	1259	4.9	44	19	578	6.99	18	N\A	ND	ND	98	11	2	2	130	1.42	0.37	11	18	1.77	157	0.41	340	2.39	0.03	0.01	1	4
	88370	7	471	239	604	7.3	22	22	429	11.19	14	N\A	ND	ND	77	6	2	6	52	0.48	0.04	19	20	1.11	51	0.13	598	1.43	0.02	0.01	1	2
	88371	4	266	152	1094	5.2	32	12	533	5.39	19	N\A	ND	ND	133	10	2	13	47	1.30	0.05	31	18	1.19	51	0.22	528	2.78	0.06	0.01	1	3
	88372	3	273	73	951	4.3	24	8	718	4.52	11	N\A	ND	ND	55	12	2	10	42	1.17	0.05	24	14	1.16	69	0.15	318	1.29	0.02	0.01	1	2
	88373	3	177	20	980	3.0	37	10	675	6.94	14	N\A	ND	ND	130	14	2	2	51	1.18	0.05	33	20	1.41	68	0.25	329	2.76	0.06	0.01	4	3
	88374	2	290	26	1135	3.5	28	11	536	6.51	9	N\A	ND	ND	84	12	2	2	43	0.83	0.05	25	15	1.07	73	0.18	380	1.80	0.03	0.01	1	2
	88375	4	123	37	480	4.9	21	12	496	2.05	29	N\A	ND	ND	95	6	2	26	13	5.86	0.03	18	10	0.31	43	0.09	151	0.99	0.01	0.02	4	2
	88376	7	131	39	1122	4.5	25	17	566	2.26	24	N\A	ND	ND	108	11	6	12	15	5.28	0.03	22	17	0.38	70	0.12	159	1.25	0.02	0.02	3	2
	88377	5	49	20	263	4.0	29	9	278	2.55	18	N\A	ND	ND	140	3	2	16	29	3.14	0.03	27	19	0.84	51	0.20	213	2.41	0.05	0.01	1	2
	88378	11	212	5788	34120	25.2	10	22	1687	19.17	3771	N\A	ND	6	30	311	42	2	2	2.10	0.04	6	34	0.24	20	0.01	5810	0.39	0.01	0.01	N\A	1
	88379	9	64	519	3317	4.3	24	9	716	3.00	213	N\A	ND	ND	14	32	6	2	15	0.55	0.03	5	17	0.60	32	0.01	611	0.59	0.01	0.01	1	1
	88380	17	876	229	1307	4.8	288	123	1238	15.69	43	N\A	ND	ND	99	18	2	2	121	0.99	0.31	13	26	0.78	32	0.06	2962	1.89	0.03	0.01	9	4
	88381	8	37	88	326	3.5	29	14	89	3.40	20	N\A	ND	ND	5	4	5	21	10	0.09	0.02	5	12	0.14	25	0.01	844	0.24	0.01	0.01	1	1
	88382	7	185	31	154	3.4	41	13	199	5.88	3	N\A	ND	ND	9	1	2	9	6	0.25	0.07	5	13	0.11	54	0.01	533	0.86	0.01	0.01	1	1
	88383	6	665	21	260	3.6	504	124	376	15.22	20	N\A	ND	ND	132	6	2	2	25	1.40	0.06	6	14	0.21	37	0.01	2336	1.56	0.06	0.01	485	2
	88384	15	64	150	411	8.1	22	9	273	1.81	396	N\A	ND	ND	21	5	73	17	11	0.19	0.12	10	12	0.04	113	0.01	175	0.17	0.01	0.01	19	1
	88385	11	133	703	356	10.5	10	7	213	1.47	410	N\A	ND	ND	11	4	193	8	6	0.08	0.06	11	18	0.02	81	0.01	211	0.16	0.01	0.01	1	1
	88386	25	85	1471	464	12.2	9	16	105	3.46	1129	N\A	ND	ND	8	2	188	2	5	0.02	0.05	9	24	0.01	115	0.01	183	0.27	0.01	0.01	1	1
	88387	9	18	186	159	3.2	4	12	41	1.07	564	N\A	ND	ND	4	1	43	2	2	0.01	0.01	4	17	0.01	61	0.01	151	0.14	0.01	0.01	1	1
	88388	11	140	341	553	12.8	17	6	43	2.13	596	N\A	ND	ND	17	6	226	11	11	0.26	0.19	13	18	0.01	55	0.01	411	0.15	0.01	0.01	1	1
	88389	16	205	4141	5715	35.8	15	2	36	2.96	3134	N\A	ND	7	8	64	1155	2	8	0.05	0.06	4	28	0.01	32	0.01	710	0.09	0.01	0.01	1	1
	88390	14	1610	5744	7498	558.8	14	8	87	3.82	12441	N\A	ND	14	7	111	4903	2	6	0.02	0.03	1	26	0.01	35	0.01	732	0.08	0.01	0.01	1	1
	88391	17	89	2248	207	25.9	5	1	64	2.29	720	N\A	ND	ND	10	2	343	2	5	0.02	0.05	1	23	0.01	77	0.01	185	0.12	0.01	0.01	10	1
	88392	14	44	183	199	28.9	5	1	43	1.02	369	N\A	ND	ND	5	2	89	2	4	0.01	0.01	2	23	0.01	54	0.01	101	0.10	0.01	0.01	1	1
	88393	9	44	57	281	2.8	12	3	632	0.86	230	N\A	ND	ND	3	4	29	2	4	0.07	0.06	3	16	0.01	89	0.01	62	0.14	0.01	0.01	1	1
	88394	14	114	249	381	7.5	10	1	251	4.85	1440	N\A	ND	ND	8	1	142	2	6	0.07	0.11	3	19	0.01	73	0.01	172	0.11	0.01	0.01	1	1
	88395	14	236	6123	160	70.6	7	1	26	2.82	6725	N\A	ND	8	3	3	767	5	1	0.01	0.01	1	32	0.01	55	0.01	407	0.01	0.01	0.01	1	1
	88396	5	179	74	42	2.3	103	53	215	5.16	95	N\A	ND	ND	65	1	9	2	23	2.28	0.05	2	17	0.24	179	0.14	729	2.58	0.13	0.01	1	1
	88397	23	807	109	252	10.5	207	135	2274	25.44	1185	N\A	ND	8	420	3	406	2	198	3.90	0.18	6	34	2.21	26	0.01	6462	0.10	0.01	0.01	21	6
	89856	8	55	10	31	1.2	22	14	165	3.20	36	N\A	ND	ND	6	1	11	2	23	0.11	0.03	3	16	0.13	69	0.01	450	0.24	0.01	0.01	1	1
	89857	11	18	9	15	0.8	8	6	43	1.20	62	N\A	ND	ND	4	1	9	2	4	0.04	0.01	1	17	0.04	57	0.01	265	0.05	0.01	0.01	1	1
	89858	6	150	23	98	2.3	24	7	2820	8.98	44	N\A	ND	ND	18	3	21	2	34	4.85	0.02	7	16	0.84	51	0.01	2009	0.89	0.01	0.07	4	2
	89859	6	665	6	79	1.4	71	47	483	14.06	17	N\A	ND	ND	5	1	2	2	9	0.85	0.02	13	13	0.23	22	0.01	2037	0.08	0.01	0.01	1	1
	89860	5	66	16	43	0.9	15	2	55	6.35	2	N\A	ND	ND	2	1	65	2	9	0.09	0.03	2	10	0.01	21	0.01	1456	0.36	0.01	0.01	1	1
	89861	8	39	4	33	0.4	10	1	54	8.72	4	N\A	ND	ND	2	1	15	2	7	0.03	0.01	1	16	0.01	7	0.01	2209	0.10	0.01	0.01	1	1

CERTIFIED BY : _____

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 E. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-2568 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB LTD.
105 COPPER RD.
WHITEHORSE YUKON
PROJECT : WO#8336
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-905A
INVOICE # : NA90-905A
DATE ENTERED : SEPT 5, 1990
FILE NAME : I905A1
PAGE # : 3

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	STD-G9	21	261	390	500	1.5	14	2	130	0.93	205	N\A	ND	ND	18	1	4	9	13	0.68	0.03	6	18	0.27	46	0.02	80	0.24	0.01	0.01	1	1
	89862	18	11	126	42	7.4	9	6	27	0.61	295	N\A	ND	ND	3	1	75	27	9	0.02	0.02	5	29	0.01	135	0.01	139	0.10	0.01	0.01	1	1
	89863	10	159	17	89	3.9	49	95	119	15.70	15	N\A	ND	ND	24	1	2	2	30	0.44	0.14	4	22	0.22	18	0.03	2465	0.58	0.02	0.01	5	2
	89864	7	2602	5195	3585	25.6	78	107	1248	31.14	32	N\A	ND	5	46	39	2	20	13	3.83	0.08	3	32	0.64	36	0.04	5167	0.43	0.01	0.01	25	2
	89865	12	25070	>2%	86470	485.1	4	20	2721	18.20	20	N\A	ND	ND	45	886	389	75	12	4.63	0.06	10	12	0.52	27	0.01	1842	0.46	0.01	0.02	N\A	1
	89866	6	1832	3059	>10%	13.3	8	118	5550	22.13	38	N\A	7	ND	198	1063	77	2	1	6.69	0.05	4	3	0.57	31	0.01	3666	0.25	0.01	0.01	N\A	1
	89867	1	104	412	1191	3.2	5	1	4342	1.44	82	N\A	6	ND	218	21	2	2	7	23.11	0.05	5	1	3.06	229	0.01	176	0.15	0.01	0.01	N\A	2
	89868	8	1757	947	>10%	12.8	68	57	13031	7.73	13201	N\A	21	ND	169	1417	139	2	1	13.45	0.03	6	1	1.83	50	0.01	2062	0.24	0.01	0.01	N\A	2
	89869	49	462	26	1602	2.5	204	53	377	6.35	98	N\A	ND	5	6	15	2	2	457	0.56	0.23	7	20	0.77	65	0.01	1337	0.72	0.01	0.01	9	10
	89870	5	89	3359	1100	30.8	154	9	289	20.98	41	N\A	ND	12	250	6	70	2	15	0.15	0.05	1	7	0.09	123	0.10	216	0.23	0.01	0.01	5	1
	89871	6	19	43	236	2.2	6	1	57416	1.65	2	N\A	56	ND	146	2	2	2	1	3.44	0.06	2	1	0.13	1771	0.01	63	0.06	0.01	0.01	1	1
	90-W3	2	35	27	64	2.9	37	18	467	2.69	31	N\A	ND	ND	123	2	9	25	44	3.59	0.16	12	8	0.85	165	0.09	248	0.79	0.01	0.01	1	2
	STD-D	3	136	115	605	5.0	24	2	79	0.94	23	N\A	ND	ND	11	4	10	20	4	0.13	0.06	7	7	0.04	150	0.01	242	0.21	0.01	0.01	1	1
	STDS	22	809	488	516	17.2	242	303	977	3.46	329	N\A	58	646	751	167	904	446	115	0.40	3.04	1102	60	0.47	251	0.14	654	1.55	0.10	0.01	295	53

CERTIFIED BY : _____

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

O : NORTHERN ANALYTICAL LABORATORY LTD.
105 COPPER ROAD
WHITEHORSE, Y.T.
ROJECT :
YPE OF ANALYSIS : ASSAY

CERTIFICATE # : WO#08336
INVOICE # : 10553
DATE ENTERED : 90-09-05
FILE NAME : NAL90421
PAGE # : 1

E X	SAMPLE NAME	% Cu	% Pb	% Zn
	88333		1.96	2.30
	88335		1.12	
	88337		4.32	
	88338		1.98	
	88339		2.50	3.32
	88349		2.42	
	88352		1.35	1.02
	88356			4.08
	88357			2.96
	88360			2.34
	88361			4.40
	88362			4.54
	88364			1.78
	88368			7.72
	88378			3.14
	89865	2.65	24.50	8.20
	89866			10.80
	89868			15.00

CERTIFIED BY : _____

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

O : NORTHERN ANALYTICAL LABORATORY LTD.
105 COPPER ROAD
WHITEHORSE, Y.T.
ROJECT :
YPE OF ANALYSIS : ASSAY

CERTIFICATE # : WO#08336
INVOICE # : 10553
DATE ENTERED : 90-09-05
FILE NAME : NAL90421
PAGE # : 1

E X	SAMPLE NAME	% Cu	% Pb	% Zn
	88333		1.96	2.30
	88335		1.12	
	88337		4.32	
	88338		1.98	
	88339		2.50	3.32
	88349		2.42	
	88352		1.35	1.02
	88356			4.08
	88357			2.96
	88360			2.34
	88361			4.40
	88362			4.54
	88364			1.78
	88368			7.72
	88378			3.14
	89865	2.65	24.50	8.20
	89866			10.80
	89868			15.00

CERTIFIED BY : _____

Appendix 3 - Geophysical Report

AMEROK GEOPHYSICS
Box 5709
Whitehorse, Yukon
Y1A 5L5

Phone (403) 668-7672

September 19, 1990

Mr. Dave Visagie
Senior Geologist
Northair Mines Ltd.
Box 830
Stewart, B.C.

Re: Willison Creek Claims VLF/mag survey

Dear Mr. Visagie,

Please find enclosed a copy of the report on the Willison Creek Claims VLF/mag survey. A second copy has been forwarded to Mr. Fred Hewett. If you have any questions or wish to discuss the results, please feel free to contact me. I will be in the Dawson area for the next 2 weeks or so and can be reached at JJ2-9580 on the Dawson JK or JL channels in the evening.

Thank you for the opportunity to work with your firm. I hope that your exploration programs are successful this season and remain,

Yours sincerely,
AMEROK GEOPHYSICS

M. A. Power M.Sc.
Geophysicist

CARMAC RESOURCES LTD.

TOTAL MAGNETIC FIELD AND VLF EM SURVEY OF THE WILLISON CREEK CLAIMS

M.A. Power M.Sc.

Atlin Mining District
NTS 104 M1

September 18, 1990

Introduction

This report describes a total magnetic field / VLF EM survey of the Jackie grid on the Willison Creek Claims conducted by Amerok Geophysics for Carmac Resources Ltd. on September 12, 1990. Approximately 5 line-km on the existing grid and on several extensions were surveyed.

Geology

In the vicinity of the grid, bedrock consists of limestone, marble and quartz-biotite gneiss overlain by talus and glacial deposits. Galena, sphalerite and pyrite mineralization occurs in veins within the calcareous rocks. (D. Visagie, pers. comm.)

Survey Specifications

The geophysical survey was performed on the existing grid covering the Jackie showing and along extension lines 500N, 600N and 100S. Readings were taken at 12.5 m intervals on the survey lines. The survey was performed using an EDA Omni Plus proton precession magnetometer and VLF total field receiver (S/N A144). An EDA Omni IV proton precession magnetometer (S/N C232), synchronized with the field unit, was installed at 0+00N 0+00E and used to remove diurnal magnetic field variation. The base station was cycled at 20 s and the corrected magnetic field measurements are probably accurate to within $\pm$5 nT. The VLF total field strength and in-phase and quadrature components of the VLF vertical magnetic field were measured using transmitting stations at Jim Creek, Washington (Station NLK: 24.8 KHz) and Cutler, Maine (Station NAA: 24.0 KHz). Average measured azimuths were 150 (to NLK) and 80 (to NAA). The horizontal magnetic field from NLK is nearly orthogonal to the trend of the showing and provides the best coupling with the target. With this equipment, a steeply dipping conductor striking approximately parallel to the grid baseline produces an asymmetric in-phase (NLK) response with a positive peak crossing over to a negative trough from west to east along all profile lines. Response wavelength should be from 100 to 200 m; responses with shorter wavelengths are probably topographic noise. Quadrature response normally consists of an asymmetric crossover in the same sense or opposite to the in-phase response with response asymmetry being a function primarily of conductance. In-phase response is diagnostic; quadrature crossovers may be misleading.

Data

The instruments record the field data in microprocessor-controlled RAM and dump to a microcomputer via a communications port. The raw dump file printouts are in the DATA section of this report and the dump files are on the disk in the back pocket. Magnetic field variations recorded at the base station are probably due to sensor motion; it was very windy during the survey and keeping the sensor stationary proved impossible. The VLF data was also affected by the wind in that the operator was forced to repeat most measurements several times in order to take an acceptable reading. In the limited time available, only short lines were run over most of the grid and the data is difficult to interpret conclusively given the relatively long wavelength of VLF responses.

Corrected magnetic field measurements were contoured to produce a total magnetic field map. Areas on the map where the magnetic field data cannot be reliably contoured have been excluded. On the map, south and west coordinates are shown as negative numbers. The VLF in-phase and quadrature components of the vertical magnetic field, normalized against the horizontal field strength, are shown in the profiles. All profiles are from West (negative) to East (positive). The profiles are segregated by transmitting station (NLK for Jim Creek and NAA for Cutler). Discrete conductor axes identified on the NLK profiles were transferred to the total magnetic field map.

Conclusions and Recommendations

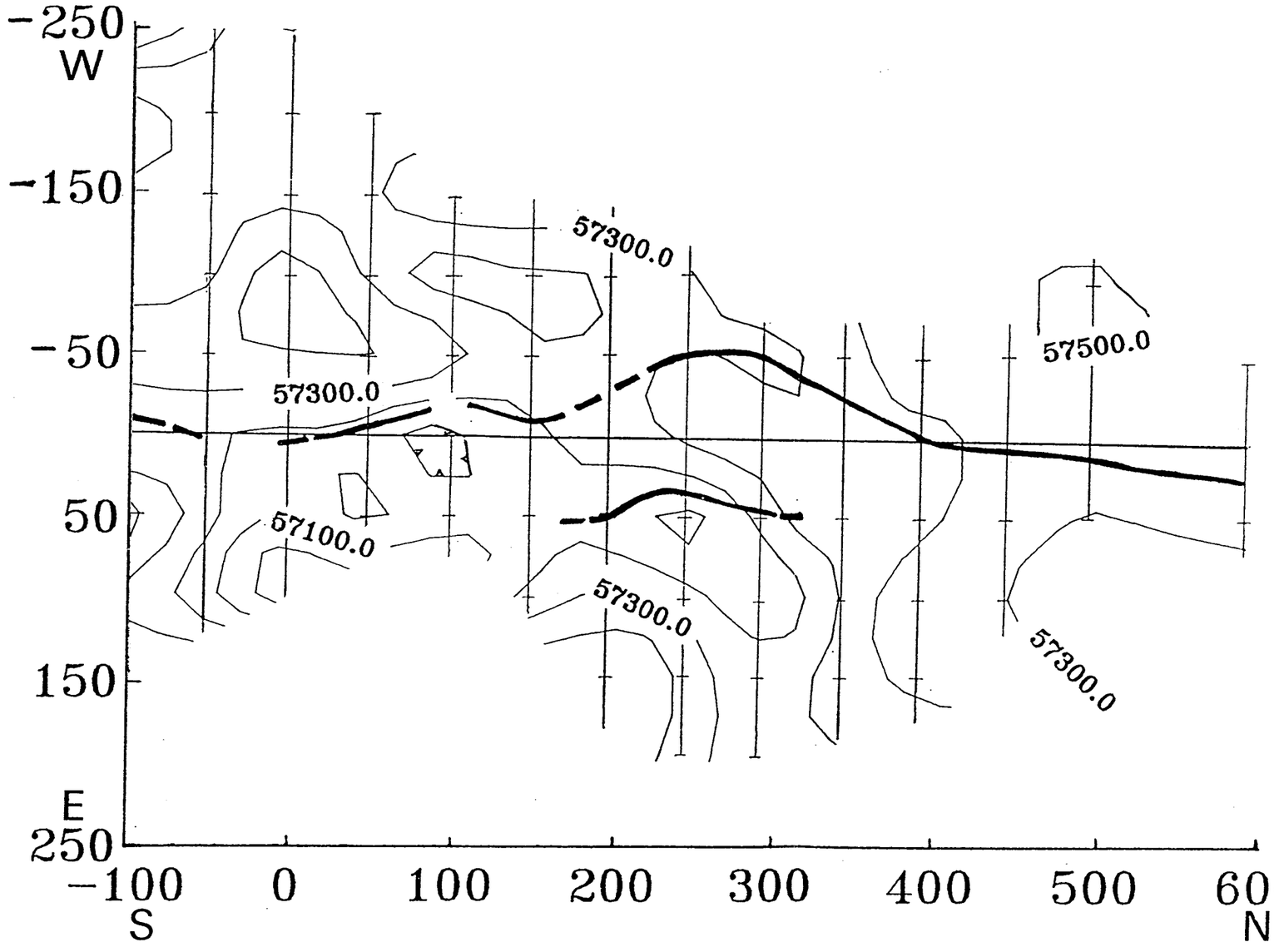
Two VLF conductors were located by the survey using the Jim Creek Transmitter. The most important of these runs the length of the grid and parallels the showing. It is generally continuous but fades south of line 200N. It is difficult to see in the shorter survey profiles but is more obvious in the longer profiles where the full response is shown. Between these lines, only the central "crossover" segment of the response is visible. A short second conductor occurs at approximately 50 E on lines 200N to 300N. The main conductor seems to follow a subtle magnetic low and the secondary conductor might splay from it near (100N,0E). The main conductor appears to be steeply dipping, possibly to the east. The Cutler data is of little use in directly identifying conductors parallel to the showing. No obvious cross-cutting conductor responses are evident in the profiles; several possible crossovers occur but they should be re-examined together with the geology.

Survey results seem to suggest that the conductor coincident with the showing continues to the north and that conductance also improves in this direction. Increasing conductor thickness, graphite or sulphide mineralization or fault gouge might cause this increased conductance. If further work is planned on this showing, the geophysical results suggest that an extension of the grid to the north rather than south is warranted.

Respectfully Submitted,
AMEROK GEOPHYSICS

M.A. Power M.Sc.
Geophysicist

September 18, 1990



CONDUCTOR AXIS (DEFINED / INFERRED)

MAGNETIC FIELD CONTOUR INTERVAL: 100 nT

CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Total Magnetic Field Map (Conductor axes superimposed)	
Date: 09/15/90	Scale: 1:3000
AMEROK GEOPHYSICS	

BS0912.DAT

EDA CRNI-IV Tie-line MAG Ser #254232
BASESTATION DATA
Date: 12 SEP 90
Operator: 4001
Reference field: 57420.0
Datum subtracted: 0.0
Records: 1190
Bat: 15.7 Volt Lithium: 3.50 Volt
Last time update: 9/12 8:54:00
Start of print: 9/12 19:44:16

Base stn. Pos: 0+00 E Line: 0+00 N

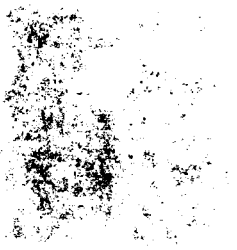
TIME	FIELD	CHANGE	DRIFT	RECORD
08:57:11	57415.0	1.1	-5.0	#1
08:58:00	57417.0	2.0	-3.0	#2
08:58:30	57421.0	4.0	1.0	#3
08:59:00	57420.3	-0.7	0.3	#4
08:59:30	57420.5	0.2	0.5	#5
09:00:00	57421.7	1.2	1.7	#6
09:00:30	57421.1	-0.6	1.1	#7
09:01:00	57418.8	-2.3	-1.2	#8
09:01:30	57418.0	-0.8	-2.0	#9
09:02:00	57417.3	-0.7	-2.7	#10
09:02:30	57417.4	0.1	-2.6	#11
09:03:00	57418.1	0.7	-1.9	#12
09:03:30	57418.3	0.2	-1.7	#13
09:04:00	57418.6	0.3	-1.4	#14
09:04:30	57417.6	-1.0	-2.4	#15
09:05:00	57417.7	0.1	-2.3	#16
09:05:30	57416.7	-1.0	-3.3	#17
09:06:00	57416.4		-3.4	#18
09:06:30	57		9	#19
09:07:00	57		9	#20
09:07:30	57		.7	#21
09:08:00	57		.0	#22
09:08:30	57		.9	#23
09:09:00	57		.1	#24
09:09:30	57418.3	-1.6	-1.7	#25
09:10:00	57417.1	-1.2	-2.9	#26
09:10:30	57417.3	0.2	-2.7	#27
09:11:00	57418.2	0.9	-1.8	#28
09:11:30	57419.3	1.1	-0.7	#29
09:12:00	57419.7	0.4	-0.3	#30
09:12:30	57420.4	0.7	0.4	#31
09:13:00	57420.6	0.2	0.6	#32
09:13:30	57420.0	-0.6	0.0	#33
09:14:00	57431.1	11.1	11.1	#34
09:14:30	57431.4	0.3	11.4	#35
09:15:00	57431.7	0.3	11.7	#36
09:15:30	57419.2	-12.5	-0.8	#37
09:16:00	57416.8	-2.4	-3.2	#38
09:16:30	57414.8	-2.0	-5.2	#39

09:17:00	57414.1	-0.7	-5.9	#40
09:17:30	57415.2	1.1	-4.8	#41
09:18:00	57419.1	3.9	-0.9	#42
09:18:30	57421.9	2.8	1.9	#43
09:19:20	57421.8	-0.1	1.8	#44
09:19:40	57419.3	-2.5	-0.7	#45
09:20:00	57416.9	-2.4	-3.1	#46
09:20:20	57415.0	-1.9	-5.0	#47
09:20:40	57414.1	-0.9	-5.9	#48
09:21:00	57413.7	-0.4	-6.3	#49
09:21:20	57413.9	0.2	-6.1	#50
09:21:40	57415.0	1.1	-5.0	#51
09:22:00	57416.1	1.1	-3.9	#52
09:22:20	57416.8	0.7	-3.2	#53
09:22:40	57416.9	0.1	-3.1	#54
09:23:00	57418.7	1.8	-1.3	#55
09:23:20	57413.7	-3.0	-4.3	#56
09:23:40	57414.7	-1.0	-5.3	#57
09:24:00	57413.4	-1.3	-6.6	#58
09:24:20	57413.1	-0.3	-6.9	#59
09:24:40	57413.7	0.6	-6.3	#60
09:25:00	57413.8	0.1	-6.2	#61
09:25:20	57414.0	0.2	-6.0	#62
09:25:40	57413.9	-0.1	-6.1	#63
09:26:00	57414.4	0.5	-5.6	#64
09:26:20	57414.7	0.3	-5.3	#65
09:26:40	57414.8	0.1	-5.2	#66
09:27:00	57414.6	-0.2	-5.4	#67
09:27:20	57413.6	-1.0	-6.4	#68
09:27:40	57413.2	-0.4	-6.8	#69
09:28:00	57412.1	-1.1	-7.9	#70
09:28:20	57412.2	0.1	-7.8	#71
09:28:40	57412.7	0.5	-7.3	#72
09:29:00	57413.4	0.7	-6.6	#73
09:29:20	57413.4	0.0	-6.6	#74
09:29:40	57413.3	-0.1	-6.7	#75
09:30:00	57412.9	-0.4	-7.1	#76
09:30:20	57412.3	-0.6	-7.7	#77
09:30:40	57411.3	-1.0	-8.7	#78
09:31:00	57410.6	-0.7	-9.4	#79
09:31:20	57410.9	0.3	-9.1	#80
09:31:40	57411.3	0.4	-8.7	#81
09:32:00	57411.4	0.1	-8.6	#82
09:32:20	57411.5	0.1	-8.5	#83
09:32:40	57411.2	-0.3	-8.8	#84
09:33:00	57[illegible]	[illegible]	[illegible].2	#85
09:33:20	57[illegible]	[illegible]	[illegible].5	#86
09:33:40	57[illegible]	[illegible]	[illegible].6	#87
09:34:00	57[illegible]	[illegible]	[illegible].3	#88
09:34:20	57[illegible]	[illegible]	[illegible].0	#89
09:34:40	57[illegible]	[illegible]	[illegible].1	#90
09:35:00	57410.2	-0.7	-9.8	#91
09:35:20	57409.9	-0.3	-10.1	#92
09:35:40	57410.1	0.2	-9.9	#93
09:36:00	57410.1	0.0	-9.9	#94
09:36:20	57409.4	-0.7	-10.6	#95
09:36:40	57409.0	-0.4	-11.0	#96
09:37:00	57409.5	0.5	-10.5	#97
09:37:20	57409.7	0.2	-10.3	#98
09:37:40	57409.8	0.1	-10.2	#99
09:38:00	57410.1	0.3	-9.9	#100
09:38:20	57410.9	0.8	-9.1	#101
09:38:40	57411.7	0.8	-8.3	#102
09:39:00	57411.9	0.2	-8.1	#103
09:39:20	57411.6	-0.3	-8.4	#104
09:39:40	57411.2	-0.4	-8.8	#105

09:40:00	57411.1	-0.1	-8.9	#106
09:40:20	57410.9	-0.2	-9.1	#107
09:40:40	57410.4	-0.5	-9.6	#108
09:41:00	57410.3	-0.1	-9.7	#109
09:41:20	57410.5	0.2	-9.5	#110
09:41:40	57411.3	0.8	-8.7	#111
09:42:00	57412.1	0.8	-7.9	#112
09:42:20	57412.8	0.7	-7.2	#113
09:42:40	57413.0	0.2	-7.0	#114
09:43:00	57413.1	0.1	-6.9	#115
09:43:20	57413.1	0.0	-6.9	#116
09:43:40	57413.1	0.0	-6.9	#117
09:44:00	57413.5	0.4	-6.5	#118
09:44:20	57413.5	0.0	-6.5	#119
09:44:40	57413.6	0.1	-6.4	#120
09:45:00	57413.8	0.2	-6.2	#121
09:45:20	57414.4	0.6	-5.6	#122
09:45:40	57414.9	0.5	-5.1	#123
09:46:00	57415.0	0.1	-5.0	#124
09:46:20	57415.1	0.1	-4.9	#125
09:46:40	57414.9	-0.2	-5.1	#126
09:47:00	57414.8	-0.1	-5.2	#127
09:47:20	57414.7	-0.1	-5.3	#128
09:47:40	57414.8	0.1	-5.2	#129
09:48:00	57415.1	0.3	-4.9	#130
09:48:20	57415.2	0.1	-4.8	#131
09:48:40	57415.4	0.2	-4.6	#132
09:49:00	57415.3	-0.1	-4.7	#133
09:49:20	57415.1	-0.2	-4.9	#134
09:49:40	57414.9	-0.2	-5.1	#135
09:50:00	57415.0	0.1	-5.0	#136
09:50:20	57414.7	-0.3	-5.3	#137
09:50:40	57414.8	0.1	-5.2	#138
09:51:00	57414.5	-0.3	-5.5	#139
09:51:20	57414.8	0.3	-5.2	#140
09:51:40	57414.9	0.1	-5.1	#141
09:52:00	57415.4	0.5	-4.6	#142
09:52:20	57415.5	0.1	-4.5	#143
09:52:40	57424.8	9.3	4.8	#144
09:53:00	57425.0	0.2	5.0	#145
09:53:20	57424.9	-0.1	4.9	#146
09:53:40	57425.2	0.3	5.2	#147
09:54:00	57425.8	0.6	5.8	#148
09:54:20	57425.9	0.1	5.9	#149
09:54:40	57427.5	1.6	7.5	#150
09:55:00	57426		.3	#151
09:55:20	574		.9	#152
09:55:40	574		.6	#153
09:56:00	574		.0	#154
09:56:20	574		.0	#155
09:56:40	574		.0	#156
09:57:00	57430.1	0.1	10.1	#157
09:57:20	57429.9	-0.2	9.9	#158
09:57:40	57430.1	0.2	10.1	#159
09:58:00	57430.6	0.5	10.6	#160
09:58:20	57430.7	0.1	10.7	#161
09:58:40	57430.7	0.0	10.7	#162
09:59:00	57430.7	0.0	10.7	#163
09:59:20	57430.9	0.2	10.9	#164
09:59:40	57431.6	0.7	11.6	#165
10:00:00	57431.7	0.1	11.7	#166
10:00:20	57431.7	0.0	11.7	#167
10:00:40	57431.4	-0.3	11.4	#168
10:01:00	57431.5	0.1	11.5	#169
10:01:20	57431.2	-0.3	11.2	#170
10:01:40	57431.6	0.4	11.6	#171

10:02:00	57431.8	0.2	11.8	#172
10:02:20	57431.8	0.0	11.8	#173
10:02:40	57431.5	-0.3	11.5	#174
10:03:00	57431.1	-0.4	11.1	#175
10:03:20	57430.8	-0.3	10.8	#176
10:03:40	57429.9	-0.9	9.9	#177
10:04:00	57429.7	-0.2	9.7	#178
10:04:20	57429.8	0.1	9.8	#179
10:04:40	57429.4	-0.4	9.4	#180
10:05:00	57428.5	-0.9	8.5	#181
10:05:20	57427.9	-0.6	7.9	#182
10:05:40	57427.5	-0.4	7.5	#183
10:06:00	57427.6	0.1	7.6	#184
10:06:20	57428.4	0.8	8.4	#185
10:06:40	57428.6	0.2	8.6	#186
10:07:00	57428.1	-0.5	8.1	#187
10:07:20	57427.2	-0.9	7.2	#188
10:07:40	57426.4	-0.8	6.4	#189
10:08:00	57426.0	-0.4	6.0	#190
10:08:20	57425.9	-0.1	5.9	#191
10:08:40	57425.9	0.0	5.9	#192
10:09:00	57425.8	-0.1	5.8	#193
10:09:20	57425.9	0.1	5.9	#194
10:09:40	57426.0	0.1	6.0	#195
10:10:00	57426.0	0.0	6.0	#196
10:10:20	57425.9	-0.1	5.9	#197
10:10:40	57426.0	0.1	6.0	#198
10:11:00	57426.0	0.0	6.0	#199
10:11:20	57425.6	-0.4	5.6	#200
10:11:40	57426.2	0.6	6.2	#201
10:12:00	57426.2	0.0	6.2	#202
10:12:20	57426.6	0.4	6.6	#203
10:12:40	57426.9	0.3	6.9	#204
10:13:00	57427.5	0.6	7.5	#205
10:13:20	57428.4	0.9	8.4	#206
10:13:40	57428.4	0.0	8.4	#207
10:14:00	57428.7	0.3	8.7	#208
10:14:20	57428.3	-0.4	8.3	#209
10:14:40	57427.8	-0.5	7.8	#210
10:15:00	57427.2	-0.6	7.2	#211
10:15:20	57427.1	-0.1	7.1	#212
10:15:40	57427.1	0.0	7.1	#213
10:16:00	57427.9	0.8	7.9	#214
10:16:20	57428.4	0.5	8.4	#215
10:16:40	57428.7	[illegible]	8.7	#216
10:17:00	57[illegible]	[illegible]	[illegible]7.0	#217
10:17:20	57[illegible]	[illegible]	[illegible]7.1	#218
10:17:40	57[illegible]	[illegible]	[illegible]8.5	#219
10:18:00	57[illegible]	[illegible]	[illegible]8.6	#220
10:18:20	57[illegible]	[illegible]	[illegible]8.5	#221
10:18:40	57[illegible]	[illegible]	[illegible]8.5	#222
10:19:00	57428.9	0.4	8.9	#223
10:19:20	57429.6	0.7	9.6	#224
10:19:40	57430.6	1.0	10.6	#225
10:20:00	57431.7	1.1	11.7	#226
10:20:20	57432.4	0.7	12.4	#227
10:20:40	57432.4	0.0	12.4	#228
10:21:00	57432.5	0.1	12.5	#229
10:21:20	57432.5	0.0	12.5	#230
10:21:40	57432.3	-0.2	12.3	#231
10:22:00	57431.9	-0.4	11.9	#232
10:22:20	57431.9	0.0	11.9	#233
10:22:40	57431.5	-0.4	11.5	#234
10:23:00	57431.9	0.4	11.9	#235
10:23:20	57432.6	0.7	12.6	#236
10:23:40	57433.5	0.9	13.5	#237

10:24:00	57434.2	0.7	14.2	#238
10:24:20	57435.1	0.9	15.1	#239
10:24:40	57435.3	0.2	15.3	#240
10:25:00	57435.2	-0.1	15.2	#241
10:25:20	57434.7	-0.5	14.7	#242
10:25:40	57434.5	-0.2	14.5	#243
10:26:00	57434.0	-0.5	14.0	#244
10:26:20	57433.6	-0.4	13.6	#245
10:26:40	57433.3	-0.3	13.3	#246
10:27:00	57433.9	0.6	13.9	#247
10:27:20	57434.6	0.7	14.6	#248
10:27:40	57434.8	0.2	14.8	#249
10:28:00	57434.9	0.1	14.9	#250
10:28:20	57434.4	-0.5	14.4	#251
10:28:40	57433.5	-0.9	13.5	#252
10:29:00	57432.6	-0.9	12.6	#253
10:29:20	57432.0	-0.6	12.0	#254
10:29:40	57431.6	-0.4	11.6	#255
10:30:00	57431.5	-0.1	11.5	#256
10:30:20	57431.6	0.1	11.6	#257
10:30:40	57431.9	0.3	11.9	#258
10:31:00	57432.3	0.4	12.3	#259
10:31:20	57432.4	0.1	12.4	#260
10:31:40	57432.2	-0.2	12.2	#261
10:32:00	57432.7	0.5	12.7	#262
10:32:20	57432.6	-0.1	12.6	#263
10:32:40	57432.2	-0.4	12.2	#264
10:33:00	57431.9	-0.3	11.9	#265
10:33:20	57430.0	-1.7	10.0	#266
10:33:40	57429.1	-0.9	9.1	#267
10:34:00	57428.7	-0.4	8.7	#268
10:34:20	57428.0	-0.7	8.0	#269
10:34:40	57427.9	-0.1	7.9	#270
10:35:00	57428.4	0.5	8.4	#271
10:35:20	57428.0	-0.4	8.0	#272
10:35:40	57427.5	-0.5	7.5	#273
10:36:00	57427.4	-0.1	7.4	#274
10:36:20	57427.1	-0.3	7.1	#275
10:36:40	57426.8	-0.3	6.8	#276
10:37:00	57427.5	0.7	7.5	#277
10:37:20	57427.5	0.0	7.5	#278
10:37:40	57427.8	0.3	7.8	#279
10:38:00	57427.7	-0.1	7.7	#280
10:38:20	57427.6	-0.1	7.6	#281
10:38:40	57427.9	0.3	7.9	#282
10:39:00	57[redacted]		8.0	#283
10:39:20	57[redacted]		8.1	#284
10:39:40	57[redacted]		8.9	#285
10:40:00	57[redacted]		8.8	#286
10:40:20	57[redacted]		8.3	#287
10:40:40	57[redacted]		7.8	#288
10:41:00	57428.1	0.3	8.1	#289
10:41:20	57427.9	-0.2	7.9	#290
10:41:40	57428.3	0.4	8.3	#291
10:42:00	57428.3	0.0	8.3	#292
10:42:20	57428.9	0.6	8.9	#293
10:42:40	57429.4	0.5	9.4	#294
10:43:00	57429.5	0.1	9.5	#295
10:43:20	57429.9	0.4	9.9	#296
10:43:40	57429.8	-0.1	9.8	#297
10:44:00	57429.9	0.1	9.9	#298
10:44:20	57429.6	-0.3	9.6	#299
10:44:40	57430.0	0.4	10.0	#300
10:45:00	57430.3	0.3	10.3	#301
10:45:20	57431.0	0.7	11.0	#302
10:45:40	57431.5	0.5	11.5	#303



10:46:00	57431.7	0.4	11.7	#304
10:46:20	57432.2	0.3	12.2	#305
10:46:40	57432.9	0.7	12.9	#306
10:47:00	57432.9	0.0	12.9	#307
10:47:20	57433.5	0.6	13.5	#308
10:47:40	57433.9	0.4	13.9	#309
10:48:00	57434.1	0.2	14.1	#310
10:48:20	57434.2	0.1	14.2	#311
10:48:40	57434.1	-0.1	14.1	#312
10:49:00	57433.9	-0.2	13.9	#313
10:49:20	57434.0	0.1	14.0	#314
10:49:40	57434.1	0.1	14.1	#315
10:50:00	57434.7	0.6	14.7	#316
10:50:20	57435.2	0.5	15.2	#317
10:50:40	57435.6	0.4	15.6	#318
10:51:00	57435.6	0.0	15.6	#319
10:51:20	57436.1	0.5	16.1	#320
10:51:40	57435.9	-0.2	15.9	#321
10:52:00	57436.5	0.6	16.5	#322
10:52:20	57436.4	-0.1	16.4	#323
10:52:40	57436.5	0.1	16.5	#324
10:53:00	57436.6	0.1	16.6	#325
10:53:20	57437.1	0.5	17.1	#326
10:53:40	57437.4	0.3	17.4	#327
10:54:00	57437.7	0.3	17.7	#328
10:54:20	57437.8	0.1	17.8	#329
10:54:40	57437.8	0.0	17.8	#330
10:55:00	57437.8	0.0	17.8	#331
10:55:20	57438.0	0.2	18.0	#332
10:55:40	57437.2	-0.8	17.2	#333
10:56:00	57436.9	-0.3	16.9	#334
10:56:20	57436.7	-0.2	16.7	#335
10:56:40	57436.6	-0.1	16.6	#336
10:57:00	57437.1	0.5	17.1	#337
10:57:20	57437.6	0.5	17.6	#338
10:57:40	57438.2	0.6	18.2	#339
10:58:00	57438.2	0.0	18.2	#340
10:58:20	57438.6	0.4	18.6	#341
10:58:40	57438.8	0.2	18.8	#342
10:59:00	57439.3	0.5	19.3	#343
10:59:20	57439.4	0.1	19.4	#344
10:59:40	57439.8	0.4	19.8	#345
11:00:00	57440.2	0.4	20.2	#346
11:00:20	57440.3	0.1	20.3	#347
11:00:40	57440.4	0.1	20.4	#348
11:01:00	57		0.2	#349
11:01:20	57		0.3	#350
11:01:40	57		0.3	#351
11:02:00	57		0.5	#352
11:02:20	57		0.8	#353
11:02:40	57		0.5	#354
11:03:00	57440.0	-0.5	20.0	#355
11:03:20	57440.0	0.0	20.0	#356
11:03:40	57440.4	0.4	20.4	#357
11:04:00	57440.6	0.2	20.6	#358
11:04:20	57441.3	0.7	21.3	#359
11:04:40	57440.9	-0.4	20.9	#360
11:05:00	57440.1	-0.8	20.1	#361
11:05:20	57440.0	-0.1	20.0	#362
11:05:40	57440.2	0.2	20.2	#363
11:06:00	57439.6	-0.6	19.6	#364
11:06:20	57439.9	0.3	19.9	#365
11:06:40	57439.7	-0.2	19.7	#366
11:07:00	57440.3	0.6	20.3	#367
11:07:20	57441.0	0.7	21.0	#368
11:07:40	57441.2	0.2	21.2	#369

11:08:00	57440.7	-0.3	20.7	#370
11:08:20	57441.0	0.1	21.0	#371
11:08:40	57441.0	0.0	21.0	#372
11:09:00	57440.3	-0.7	20.3	#373
11:09:20	57440.5	0.2	20.5	#374
11:09:40	57440.1	-0.4	20.1	#375
11:10:00	57440.2	0.1	20.2	#376
11:10:20	57439.4	-0.8	19.4	#377
11:10:40	57438.3	-1.1	18.3	#378
11:11:00	57437.8	-0.5	17.8	#379
11:11:20	57437.7	-0.1	17.7	#380
11:11:40	57437.8	0.1	17.8	#381
11:12:00	57436.8	-1.0	16.8	#382
11:12:20	57439.1	2.3	19.1	#383
11:12:40	57441.4	2.3	21.4	#384
11:13:00	57441.6	0.2	21.6	#385
11:13:20	57426.3	-15.3	6.3	#386
11:13:40	57426.4	0.1	6.4	#387
11:14:00	57427.1	0.7	7.1	#388
11:14:20	57426.8	-0.3	6.8	#389
11:14:40	57426.8	0.0	6.8	#390
11:15:00	57426.7	-0.1	6.7	#391
11:15:20	57427.3	0.6	7.3	#392
11:15:40	57426.6	-0.7	6.6	#393
11:16:00	57425.7	-0.9	5.7	#394
11:16:20	57425.6	-0.1	5.6	#395
11:16:40	57426.1	0.5	6.1	#396
11:17:00	57426.7	0.6	6.7	#397
11:17:20	57427.2	0.5	7.2	#398
11:17:40	57427.4	0.2	7.4	#399
11:18:00	57427.5	0.1	7.5	#400
11:18:20	57427.5	0.0	7.5	#401
11:18:40	57427.6	0.1	7.6	#402
11:19:00	57427.1	-0.5	7.1	#403
11:19:20	57426.9	-0.2	6.9	#404
11:19:40	57426.6	-0.3	6.6	#405
11:20:00	57426.2	-0.4	6.2	#406
11:20:20	57425.5	-0.7	5.5	#407
11:20:40	57426.0	0.5	6.0	#408
11:21:00	57426.5	0.5	6.5	#409
11:21:20	57427.1	0.6	7.1	#410
11:21:40	57427.0	-0.1	7.0	#411
11:22:00	57426.8	-0.2	6.8	#412
11:22:20	57425.9	-0.9	5.9	#413
11:22:40	57425.2	-0.7	5.2	#414
11:23:00	57425.8		5.8	#415
11:23:20	57425.8		5.8	#416
11:23:40	57426.6		6.6	#417
11:24:00	57425.5		5.5	#418
11:24:20	57426.1		6.1	#419
11:24:40	57426.0		6.0	#420
11:25:00	57427.1	1.1	7.1	#421
11:25:20	57427.3	0.2	7.3	#422
11:25:40	57427.3	0.0	7.3	#423
11:26:00	57427.6	0.3	7.6	#424
11:26:20	57427.8	0.2	7.8	#425
11:26:40	57426.7	-1.1	6.7	#426
11:27:00	57426.6	-0.1	6.6	#427
11:27:20	57425.9	-0.7	5.9	#428
11:27:40	57426.5	0.6	6.5	#429
11:28:00	57425.8	-0.7	5.8	#430
11:28:20	57425.6	-0.2	5.6	#431
11:28:40	57425.2	-0.4	5.2	#432
11:29:00	57425.2	0.0	5.2	#433
11:29:20	57425.3	0.1	5.3	#434
11:29:40	57425.4	0.1	5.4	#435

11:30:00	57425.7	0.3	5.7	#436
11:30:20	57425.3	-0.4	5.3	#437
11:30:40	57425.1	-0.2	5.1	#438
11:31:00	57425.1	0.0	5.1	#439
11:31:20	57425.5	0.4	5.5	#440
11:31:40	57424.7	-0.8	4.7	#441
11:32:00	57424.3	-0.4	4.3	#442
11:32:20	57424.6	0.3	4.6	#443
11:32:40	57425.0	0.4	5.0	#444
11:33:00	57425.2	0.2	5.2	#445
11:33:20	57425.5	0.3	5.5	#446
11:33:40	57425.3	-0.2	5.3	#447
11:34:00	57424.7	-0.6	4.7	#448
11:34:20	57424.0	-0.7	4.0	#449
11:34:40	57423.1	-0.9	3.1	#450
11:35:00	57422.9	-0.2	2.9	#451
11:35:20	57422.5	-0.4	2.5	#452
11:35:40	57421.8	-0.7	1.8	#453
11:36:00	57422.0	0.2	2.0	#454
11:36:20	57422.9	0.9	2.9	#455
11:36:40	57423.7	0.8	3.7	#456
11:37:00	57424.2	0.5	4.2	#457
11:37:20	57423.9	-0.3	3.9	#458
11:37:40	57423.5	-0.4	3.5	#459
11:38:00	57422.7	-0.8	2.7	#460
11:38:20	57421.6	-1.1	1.6	#461
11:38:40	57420.6	-1.0	0.6	#462
11:39:00	57419.5	-1.1	-0.5	#463
11:39:20	57418.4	-1.1	-1.6	#464
11:39:40	57417.9	-0.5	-2.1	#465
11:40:00	57417.5	-0.4	-2.5	#466
11:40:20	57418.1	0.6	-1.9	#467
11:40:40	57419.0	0.9	-1.0	#468
11:41:00	57418.7	-0.3	-1.3	#469
11:41:20	57418.7	0.0	-1.3	#470
11:41:40	57418.7	0.0	-1.3	#471
11:42:00	57419.5	0.8	-0.5	#472
11:42:20	57419.4	-0.1	-0.6	#473
11:42:40	57418.5	-0.9	-1.5	#474
11:43:00	57418.3	-0.2	-1.7	#475
11:43:20	57417.6	-0.7	-2.4	#476
11:43:40	57417.8	0.2	-2.2	#477
11:44:00	57417.3	-0.5	-2.7	#478
11:44:20	57416.5	-0.8	-3.5	#479
11:44:40	57416.1	-0.4	-3.9	#480
11:45:00	57415.8	-0.3	-4.2	#481
11:45:20	57415.1	-0.7	-4.9	#482
11:45:40	57414.4	-0.7	-5.6	#483
11:46:00	57413.7	-0.7	-6.3	#484
11:46:20	57413.7	0.0	-6.3	#485
11:46:40	57413.2	-0.5	-6.8	#486
11:47:00	57415.5	-0.3	-4.5	#487
11:47:20	57415.2	-0.3	-4.8	#488
11:47:40	57414.5	-0.7	-5.5	#489
11:48:00	57414.5	0.0	-5.5	#490
11:48:20	57414.3	-0.2	-5.7	#491
11:48:40	57413.2	-1.1	-6.8	#492
11:49:00	57412.5	-0.7	-7.5	#493
11:49:20	57411.9	-0.6	-8.1	#494
11:49:40	57412.5	0.6	-7.5	#495
11:50:00	57412.7	0.2	-7.3	#496
11:50:20	57413.0	0.3	-7.0	#497
11:50:40	57412.6	-0.4	-7.4	#498
11:51:00	57412.7	0.1	-7.3	#499
11:51:20	57412.3	-0.4	-7.7	#500
11:51:40	57411.6	-0.7	-8.4	#501

11:52:00	57411.0	-0.6	-9.0	#502
11:52:20	57410.6	-0.4	-9.4	#503
11:52:40	57410.8	0.2	-9.2	#504
11:53:00	57409.8	-1.0	-10.2	#505
11:53:20	57409.9	0.1	-10.1	#506
11:53:40	57410.4	0.5	-9.6	#507
11:54:00	57411.3	0.9	-8.7	#508
11:54:20	57411.5	0.2	-8.5	#509
11:54:40	57411.2	-0.3	-8.8	#510
11:55:00	57409.9	-1.3	-10.1	#511
11:55:20	57409.7	-0.2	-10.3	#512
11:55:40	57409.4	-0.3	-10.6	#513
11:56:00	57408.7	-0.7	-11.3	#514
11:56:20	57408.3	-0.4	-11.7	#515
11:56:40	57408.4	0.1	-11.6	#516
11:57:00	57408.6	0.2	-11.4	#517
11:57:20	57409.0	0.4	-11.0	#518
11:57:40	57409.8	0.8	-10.2	#519
11:58:00	57409.3	-0.5	-10.7	#520
11:58:20	57408.7	-0.6	-11.3	#521
11:58:40	57407.3	-1.4	-12.7	#522
11:59:00	57406.5	-0.8	-13.5	#523
11:59:20	57406.0	-0.5	-14.0	#524
11:59:40	57405.2	-0.8	-14.8	#525
12:00:00	57405.5	0.3	-14.5	#526
12:00:20	57406.1	0.6	-13.9	#527
12:00:40	57407.1	1.0	-12.9	#528
12:01:00	57407.1	0.0	-12.9	#529
12:01:20	57406.8	-0.3	-13.2	#530
12:01:40	57407.4	0.6	-12.6	#531
12:02:00	57407.8	0.4	-12.2	#532
12:02:20	57407.5	-0.3	-12.5	#533
12:02:40	57406.3	-1.2	-13.7	#534
12:03:00	57405.5	-0.8	-14.5	#535
12:03:20	57405.3	-0.2	-14.7	#536
12:03:40	57405.5	0.2	-14.5	#537
12:04:00	57405.6	0.1	-14.4	#538
12:04:20	57405.7	0.1	-14.3	#539
12:04:40	57406.2	0.5	-13.8	#540
12:05:00	57406.8	0.6	-13.2	#541
12:05:20	57406.8	0.0	-13.2	#542
12:05:40	57406.4	-0.4	-13.6	#543
12:06:00	57406.7	0.3	-13.3	#544
12:06:20	57407.1	0.4	-12.9	#545
12:06:40	57407.7	0.6	-12.3	#546
12:07:00	57		2.2	#547
12:07:20	57		2.9	#548
12:07:40	57		3.4	#549
12:08:00	57		3.5	#550
12:08:20	57		3.2	#551
12:08:40	57		3.1	#552
12:09:00	57407.6	-0.7	-12.4	#553
12:09:20	57407.8	0.2	-12.2	#554
12:09:40	57407.7	-0.1	-12.3	#555
12:10:00	57408.0	0.3	-12.0	#556
12:10:20	57407.8	-0.2	-12.2	#557
12:10:40	57407.5	-0.3	-12.5	#558
12:11:00	57407.7	0.2	-12.3	#559
12:11:20	57407.5	-0.2	-12.5	#560
12:11:40	57407.5	0.0	-12.5	#561
12:12:00	57407.4	-0.1	-12.6	#562
12:12:20	57406.9	-0.5	-13.1	#563
12:12:40	57407.0	0.1	-13.0	#564
12:13:00	57407.1	0.1	-12.9	#565
12:13:20	57407.1	0.0	-12.9	#566
12:13:40	57406.6	-0.5	-13.4	#567

12:14:00	57406.1	-0.5	-13.9	#568
12:14:20	57406.2	0.1	-13.8	#569
12:14:40	57405.5	-0.7	-14.5	#570
12:15:00	57405.8	0.3	-14.2	#571
12:15:20	57406.3	0.5	-13.7	#572
12:15:40	57406.4	0.1	-13.6	#573
12:16:00	57407.6	1.2	-12.4	#574
12:16:20	57407.6	0.0	-12.4	#575
12:16:40	57407.7	0.1	-12.3	#576
12:17:00	57406.9	-0.8	-13.1	#577
12:17:20	57406.3	-0.6	-13.7	#578
12:17:40	57406.2	-0.1	-13.8	#579
12:18:00	57406.3	0.1	-13.7	#580
12:18:20	57406.3	0.0	-13.7	#581
12:18:40	57407.1	0.8	-12.9	#582
12:19:00	57407.0	-0.1	-13.0	#583
12:19:20	57406.7	-0.3	-13.3	#584
12:19:40	57406.5	-0.2	-13.5	#585
12:20:00	57406.7	0.2	-13.3	#586
12:20:20	57406.7	0.0	-13.3	#587
12:20:40	57406.1	-0.6	-13.9	#588
12:21:00	57405.3	-0.8	-14.7	#589
12:21:20	57404.8	-0.5	-15.2	#590
12:21:40	57405.1	0.3	-14.9	#591
12:22:00	57405.1	0.0	-14.9	#592
12:22:20	57405.5	0.4	-14.5	#593
12:22:40	57405.2	-0.3	-14.8	#594
12:23:00	57405.3	0.1	-14.7	#595
12:23:20	57406.2	0.9	-13.8	#596
12:23:40	57405.6	-0.6	-14.4	#597
12:24:00	57405.2	-0.4	-14.8	#598
12:24:20	57406.2	1.0	-13.8	#599
12:24:40	57406.6	0.4	-13.4	#600
12:25:00	57405.7	-0.9	-14.3	#601
12:25:20	57405.3	-0.4	-14.7	#602
12:25:40	57405.3	0.0	-14.7	#603
12:26:00	57406.3	1.0	-13.7	#604
12:26:20	57406.9	0.6	-13.1	#605
12:26:40	57407.5	0.6	-12.5	#606
12:27:00	57407.0	-0.5	-13.0	#607
12:27:20	57406.4	-0.6	-13.6	#608
12:27:40	57407.1	0.7	-12.9	#609
12:28:00	57408.4	1.3	-11.6	#610
12:28:20	57408.1	-0.3	-11.9	#611
12:28:40	57408.0	-0.1	-12.0	#612
12:29:00	5740		2.2	#613
12:29:20	574		2	#614
12:29:40	574		2.2	#615
12:30:00	57		2.4	#616
12:30:20	574		2.4	#617
12:30:40	5740		3.1	#618
12:31:00	57407.1	0.2	-12.9	#619
12:31:20	57407.0	-0.1	-13.0	#620
12:31:40	57407.5	0.5	-12.5	#621
12:32:00	57407.8	0.3	-12.2	#622
12:32:20	57408.8	1.0	-11.2	#623
12:32:40	57408.7	-0.1	-11.3	#624
12:33:00	57408.9	0.2	-11.1	#625
12:33:20	57408.8	-0.1	-11.2	#626
12:33:40	57408.9	0.1	-11.1	#627
12:34:00	57409.9	1.0	-10.1	#628
12:34:20	57409.9	0.0	-10.1	#629
12:34:40	57410.9	1.0	-9.1	#630
12:35:00	57411.2	0.3	-8.8	#631
12:35:20	57411.0	-0.2	-9.0	#632
12:35:40	57410.1	-0.9	-9.9	#633

12:36:00	57411.7	1.6	-8.3	#634
12:36:20	57411.5	-0.2	-8.5	#635
12:36:40	57411.2	-0.3	-8.8	#636
12:37:00	57410.4	-0.8	-9.6	#637
12:37:20	57410.1	-0.3	-9.9	#638
12:37:40	57409.2	-0.9	-10.8	#639
12:38:00	57409.8	0.6	-10.2	#640
12:38:20	57410.0	0.2	-10.0	#641
12:38:40	57409.7	-0.3	-10.3	#642
12:39:00	57410.1	0.4	-9.9	#643
12:39:20	57408.3	-1.8	-11.7	#644
12:39:40	57408.6	0.3	-11.4	#645
12:40:00	57408.8	0.2	-11.2	#646
12:40:20	57408.0	-0.8	-12.0	#647
12:40:40	57408.6	0.6	-11.4	#648
12:41:00	57408.9	0.3	-11.1	#649
12:41:20	57409.6	0.7	-10.4	#650
12:41:40	57409.6	0.0	-10.4	#651
12:42:00	57409.2	-0.4	-10.8	#652
12:42:20	57409.6	0.4	-10.4	#653
12:42:40	57411.0	1.4	-9.0	#654
12:43:00	57410.3	-0.7	-9.7	#655
12:43:20	57410.0	-0.3	-10.0	#656
12:43:40	57410.0	0.0	-10.0	#657
12:44:00	57410.1	0.1	-9.9	#658
12:44:20	57409.6	-0.5	-10.4	#659
12:44:40	57409.3	-0.3	-10.7	#660
12:45:00	57410.0	0.7	-10.0	#661
12:45:20	57409.9	-0.1	-10.1	#662
12:45:40	57410.9	1.0	-9.1	#663
12:46:00	57411.8	0.9	-8.2	#664
12:46:20	57412.4	0.6	-7.6	#665
12:46:40	57412.9	0.5	-7.1	#666
12:47:00	57412.8	-0.1	-7.2	#667
12:47:20	57412.9	0.1	-7.1	#668
12:47:40	57413.5	0.6	-6.5	#669
12:48:00	57413.9	0.4	-6.1	#670
12:48:20	57414.1	0.2	-5.9	#671
12:48:40	57414.3	0.2	-5.7	#672
12:49:00	57414.7	0.4	-5.3	#673
12:49:20	57415.2	0.5	-4.8	#674
12:49:40	57416.0	0.8	-4.0	#675
12:50:00	57415.9	-0.1	-4.1	#676
12:50:20	57415.4	-0.5	-4.6	#677
12:50:40	57415.6	0.2	-4.4	#678
12:51:00	57		4.5	#679
12:51:20	57		4.3	#680
12:51:40	57		4.3	#681
12:52:00	57		4.0	#682
12:52:20	57		4.1	#683
12:52:40	57		4.2	#684
12:53:00	57415.8	0.0	-4.2	#685
12:53:20	57415.9	0.1	-4.1	#686
12:53:40	57415.8	-0.1	-4.2	#687
12:54:00	57416.0	0.2	-4.0	#688
12:54:20	57415.7	-0.3	-4.3	#689
12:54:40	57415.9	0.2	-4.1	#690
12:55:00	57416.2	0.3	-3.8	#691
12:55:20	57416.5	0.3	-3.5	#692
12:55:40	57416.9	0.4	-3.1	#693
12:56:00	57416.6	-0.3	-3.4	#694
12:56:20	57416.6	0.0	-3.4	#695
12:56:40	57417.1	0.5	-2.9	#696
12:57:00	57417.4	0.3	-2.6	#697
12:57:20	57417.5	0.1	-2.5	#698
12:57:40	57418.2	0.7	-1.8	#699

12:58:00	57418.6	0.4	-1.4	#700
12:58:20	57418.9	0.3	-1.1	#701
12:58:40	57418.7	-0.2	-1.3	#702
12:59:00	57418.8	0.1	-1.2	#703
12:59:20	57419.1	0.3	-0.9	#704
12:59:40	57419.4	0.3	-0.6	#705
13:00:00	57419.8	0.4	-0.2	#706
13:00:20	57419.6	-0.2	-0.4	#707
13:00:40	57419.0	-0.6	-1.0	#708
13:01:00	57419.4	0.4	-0.6	#709
13:01:20	57419.9	0.5	-0.1	#710
13:01:40	57420.0	0.1	0.0	#711
13:02:00	57419.8	-0.2	-0.2	#712
13:02:20	57419.8	0.0	-0.2	#713
13:02:40	57420.1	0.3	0.1	#714
13:03:00	57420.4	0.3	0.4	#715
13:03:20	57421.0	0.6	1.0	#716
13:03:40	57421.1	0.1	1.1	#717
13:04:00	57420.9	-0.2	0.9	#718
13:04:20	57421.3	0.4	1.3	#719
13:04:40	57421.1	-0.2	1.1	#720
13:05:00	57421.5	0.4	1.5	#721
13:05:20	57421.2	-0.3	1.2	#722
13:05:40	57420.9	-0.3	0.9	#723
13:06:00	57421.0	0.1	1.0	#724
13:06:20	57421.3	0.3	1.3	#725
13:06:40	57421.5	0.2	1.5	#726
13:07:00	57421.0	-0.5	1.0	#727
13:07:20	57421.4	0.4	1.4	#728
13:07:40	57421.3	-0.1	1.3	#729
13:08:00	57421.3	0.0	1.3	#730
13:08:20	57421.5	0.2	1.5	#731
13:08:40	57421.5	0.0	1.5	#732
13:09:00	57421.5	0.0	1.5	#733
13:09:20	57421.6	0.1	1.6	#734
13:09:40	57421.3	-0.3	1.3	#735
13:10:00	57421.2	-0.1	1.2	#736
13:10:20	57421.2	0.0	1.2	#737
13:10:40	57421.6	0.4	1.6	#738
13:11:00	57421.7	0.1	1.7	#739
13:11:20	57421.7	0.0	1.7	#740
13:11:40	57421.0	-0.7	1.0	#741
13:12:00	57421.2	0.2	1.2	#742
13:12:20	57421.2	0.0	1.2	#743
13:12:40	57420.8	-0.4	0.8	#744
13:13:00	57[illegible]		0.5	#745
13:13:20	5741[illegible]		0.3	#746
13:13:40	574[illegible]		0.1	#747
13:14:00	57[illegible]		0.4	#748
13:14:20	57[illegible]		0.5	#749
13:14:40	5741[illegible]		0.3	#750
13:15:00	57419.6	-0.1	-0.4	#751
13:15:20	57419.0	-0.6	-1.0	#752
13:15:40	57418.1	-0.9	-1.9	#753
13:16:00	57418.5	0.4	-1.5	#754
13:16:20	57418.4	-0.1	-1.6	#755
13:16:40	57418.7	0.3	-1.3	#756
13:17:00	57418.3	-0.4	-1.7	#757
13:17:20	57418.2	-0.1	-1.8	#758
13:17:40	57418.4	0.2	-1.6	#759
13:18:00	57418.1	-0.3	-1.9	#760
13:18:20	57417.6	-0.5	-2.4	#761
13:18:40	57417.7	0.1	-2.3	#762
13:19:00	57419.0	1.3	-1.0	#763
13:19:20	57418.9	-0.1	-1.1	#764
13:19:40	57418.5	-0.4	-1.5	#765

13:20:00	57417.4	-1.1	-2.6	#766
13:20:20	57417.3	-0.1	-2.7	#767
13:20:40	57417.7	0.4	-2.3	#768
13:21:00	57417.6	-0.1	-2.4	#769
13:21:20	57417.4	-0.2	-2.6	#770
13:21:40	57417.5	0.1	-2.5	#771
13:22:00	57418.1	0.6	-1.9	#772
13:22:20	57418.3	0.2	-1.7	#773
13:22:40	57418.0	-0.3	-2.0	#774
13:23:00	57417.8	-0.2	-2.2	#775
13:23:20	57417.7	-0.1	-2.3	#776
13:23:40	57417.9	0.2	-2.1	#777
13:24:00	57418.0	0.1	-2.0	#778
13:24:20	57417.8	-0.2	-2.2	#779
13:24:40	57418.1	0.3	-1.9	#780
13:25:00	57417.3	-0.8	-2.7	#781
13:25:20	57417.5	0.2	-2.5	#782
13:25:40	57418.1	0.6	-1.9	#783
13:26:00	57417.1	-1.0	-2.9	#784
13:26:20	57417.1	0.0	-2.9	#785
13:26:40	57418.4	1.3	-1.6	#786
13:27:00	57418.1	-0.3	-1.9	#787
13:27:20	57418.2	0.1	-1.8	#788
13:27:40	57418.3	0.1	-1.7	#789
13:28:00	57420.1	1.8	0.1	#790
13:28:20	57420.3	0.2	0.3	#791
13:28:40	57420.4	0.1	0.4	#792
13:29:00	57420.8	0.4	0.8	#793
13:29:20	57420.8	0.0	0.8	#794
13:29:40	57420.9	0.1	0.9	#795
13:30:00	57421.1	0.2	1.1	#796
13:30:20	57420.4	-0.7	0.4	#797
13:30:40	57419.8	-0.6	-0.2	#798
13:31:00	57420.2	0.4	0.2	#799
13:31:20	57419.5	-0.7	-0.5	#800
13:31:40	57418.7	-0.8	-1.3	#801
13:32:00	57418.6	-0.1	-1.4	#802
13:32:20	57419.3	0.7	-0.7	#803
13:32:40	57418.4	-0.9	-1.6	#804
13:33:00	57417.7	-0.7	-2.3	#805
13:33:20	57417.1	-0.6	-2.9	#806
13:33:40	57416.0	-1.1	-4.0	#807
13:34:00	57415.4	-0.6	-4.6	#808
13:34:20	57415.9	0.5	-4.1	#809
13:34:40	57417.8	2.0	-2.1	#810
13:35:00	57[illegible]	[illegible]	2.7	#811
13:35:20	574[illegible]	[illegible]	3.6	#812
13:35:40	57[illegible]	[illegible]	2.8	#813
13:36:00	57[illegible]	[illegible]	2.7	#814
13:36:20	57[illegible]	[illegible]	3.0	#815
13:36:40	574[illegible]	[illegible]	3.8	#816
13:37:00	57416.1	-0.1	-3.9	#817
13:37:20	57416.7	0.6	-3.3	#818
13:37:40	57417.0	0.3	-3.0	#819
13:38:00	57416.4	-0.6	-3.6	#820
13:38:20	57415.9	-0.5	-4.1	#821
13:38:40	57414.9	-1.0	-5.1	#822
13:39:00	57415.6	0.7	-4.4	#823
13:39:20	57417.0	1.4	-3.0	#824
13:39:40	57416.2	-0.8	-3.8	#825
13:40:00	57415.9	-0.3	-4.1	#826
13:40:20	57415.4	-0.5	-4.6	#827
13:40:40	57414.8	-0.6	-5.2	#828
13:41:00	57414.7	-0.1	-5.3	#829
13:41:20	57416.0	1.3	-4.0	#830
13:41:40	57415.3	-0.7	-4.7	#831

13:42:00	57415.5	0.2	-4.5	#832
13:42:20	57415.5	0.0	-4.5	#833
13:42:40	57415.9	0.4	-4.1	#834
13:43:00	57415.6	-0.3	-4.4	#835
13:43:20	57416.7	1.1	-3.3	#836
13:43:40	57417.6	0.9	-2.4	#837
13:44:00	57418.3	0.7	-1.7	#838
13:44:20	57418.3	0.0	-1.7	#839
13:44:40	57419.1	0.8	-0.9	#840
13:45:00	57419.5	0.4	-0.5	#841
13:45:20	57419.0	-0.5	-1.0	#842
13:45:40	57417.2	-1.8	-2.8	#843
13:46:00	57416.0	-1.2	-4.0	#844
13:46:20	57416.2	0.2	-3.8	#845
13:46:40	57417.0	0.8	-3.0	#846
13:47:00	57418.3	1.3	-1.7	#847
13:47:20	57416.4	-1.9	-3.6	#848
13:47:40	57414.9	-1.5	-5.1	#849
13:48:00	57416.4	1.5	-3.6	#850
13:48:20	57416.2	-0.2	-3.8	#851
13:48:40	57416.7	0.5	-3.3	#852
13:49:00	57416.3	-0.4	-3.7	#853
13:49:20	57416.0	-0.3	-4.0	#854
13:49:40	57415.7	-0.3	-4.3	#855
13:50:00	57413.7	-2.0	-6.3	#856
13:50:20	57414.3	0.6	-5.7	#857
13:50:40	57413.3	-1.0	-6.7	#858
13:51:00	57414.8	1.5	-5.2	#859
13:51:20	57415.0	0.2	-5.0	#860
13:51:40	57415.6	0.6	-4.4	#861
13:52:00	57417.5	1.9	-2.5	#862
13:52:20	57414.5	-3.0	-5.5	#863
13:52:40	57414.8	0.3	-5.2	#864
13:53:00	57417.7	2.9	-2.3	#865
13:53:20	57418.2	0.5	-1.8	#866
13:53:40	57418.7	0.5	-1.3	#867
13:54:00	57417.6	-1.1	-2.4	#868
13:54:20	57419.8	2.2	-0.2	#869
13:54:40	57420.3	0.5	0.3	#870
13:55:00	57419.1	-1.2	-0.9	#871
13:55:20	57419.4	0.3	-0.6	#872
13:55:40	57418.7	-0.7	-1.3	#873
13:56:00	57418.6	-0.1	-1.4	#874
13:56:20	57419.5	0.9	-0.5	#875
13:56:40	57420.8	1.3	0.8	#876
13:57:00	5742[redacted]		.6	#877
13:57:20	5742[redacted]		.1	#878
13:57:40	5742[redacted]		.6	#879
13:58:00	5742[redacted]		.1	#880
13:58:20	5742[redacted]		2.8	#881
13:58:40	5742[redacted]		4.1	#882
13:59:00	57424.2	0.1	4.2	#883
13:59:20	57420.0	-4.2	0.0	#884
13:59:40	57421.0	1.0	1.0	#885
14:00:00	57421.8	0.8	1.8	#886
14:00:20	57421.6	-0.2	1.6	#887
14:00:40	57419.9	-1.7	-0.1	#888
14:01:00	57418.0	-1.9	-2.0	#889
14:01:20	57419.1	1.1	-0.9	#890
14:01:40	57421.2	2.1	1.2	#891
14:02:00	57420.9	-0.3	0.9	#892
14:02:20	57419.0	-1.9	-1.0	#893
14:02:40	57418.7	-0.3	-1.3	#894
14:03:00	57418.0	-0.7	-2.0	#895
14:03:20	57417.9	-0.1	-2.1	#896
14:03:40	57417.5	-0.4	-2.5	#897

14:04:00	57418.4	0.9	-1.6	#898
14:04:20	57418.3	-0.1	-1.7	#899
14:04:40	57418.6	0.3	-1.4	#900
14:05:00	57419.1	0.5	-0.9	#901
14:05:20	57420.1	1.0	0.1	#902
14:05:40	57419.6	-0.5	-0.4	#903
14:06:00	57418.8	-0.8	-1.2	#904
14:06:20	57420.4	1.6	0.4	#905
14:06:40	57421.2	0.8	1.2	#906
14:07:00	57422.5	1.3	2.5	#907
14:07:20	57422.1	-0.4	2.1	#908
14:07:40	57421.8	-0.3	1.8	#909
14:08:00	57422.6	0.8	2.6	#910
14:08:20	57423.6	1.0	3.6	#911
14:08:40	57425.4	1.8	5.4	#912
14:09:00	57426.4	1.0	6.4	#913
14:09:20	57426.0	-0.4	6.0	#914
14:09:40	57425.2	-0.8	5.2	#915
14:10:00	57427.2	2.0	7.2	#916
14:10:20	57427.9	0.7	7.9	#917
14:10:40	57427.7	-0.2	7.7	#918
14:11:00	57428.1	0.4	8.1	#919
14:11:20	57426.4	-1.7	6.4	#920
14:11:40	57424.3	-2.1	4.3	#921
14:12:00	57425.6	1.3	5.6	#922
14:12:20	57426.2	0.6	6.2	#923
14:12:40	57427.5	1.3	7.5	#924
14:13:00	57426.8	-0.7	6.8	#925
14:13:20	57427.1	0.3	7.1	#926
14:13:40	57426.6	-0.5	6.6	#927
14:14:00	57426.5	-0.1	6.5	#928
14:14:20	57427.7	1.2	7.7	#929
14:14:40	57427.9	0.2	7.9	#930
14:15:00	57427.2	-0.7	7.2	#931
14:15:20	57426.2	-1.0	6.2	#932
14:15:40	57426.9	0.7	6.9	#933
14:16:00	57428.1	1.2	8.1	#934
14:16:20	57428.2	0.1	8.2	#935
14:16:40	57428.9	0.7	8.9	#936
14:17:00	57428.9	0.0	8.9	#937
14:17:20	57428.9	0.0	8.9	#938
14:17:40	57429.1	0.2	9.1	#939
14:18:00	57427.9	-1.2	7.9	#940
14:18:20	57426.7	-1.2	6.7	#941
14:18:40	57426.5	-0.2	6.5	#942
14:19:00	57427.9	1.4	7.9	#943
14:19:20	57428.0	0.1	8.0	#944
14:19:40	57427.7	-0.3	7.7	#945
14:20:00	57428.6	0.9	8.6	#946
14:20:20	57428.3	-0.3	8.3	#947
14:20:40	57426.4	-1.9	6.4	#948
14:21:00	57425.8	-0.6	5.8	#949
14:21:20	57425.5	-0.3	5.5	#950
14:21:40	57426.6	1.1	6.6	#951
14:22:00	57428.6	2.0	8.6	#952
14:22:20	57428.5	-0.1	8.5	#953
14:22:40	57427.6	-0.9	7.6	#954
14:23:00	57427.4	-0.2	7.4	#955
14:23:20	57427.5	0.1	7.5	#956
14:23:40	57426.9	-0.6	6.9	#957
14:24:00	57428.8	1.9	8.8	#958
14:24:20	57426.1	-2.7	6.1	#959
14:24:40	57426.3	0.2	6.3	#960
14:25:00	57426.4	0.1	6.4	#961
14:25:20	57426.6	0.2	6.6	#962
14:25:40	57429.7	3.1	9.7	#963

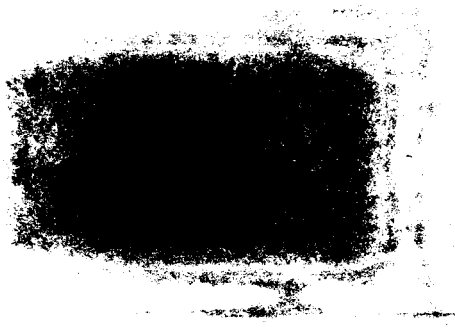
14:26:00	57429.5	-0.2	9.5	#964
14:26:20	57428.6	-0.9	8.6	#965
14:26:40	57424.5	-4.1	4.5	#966
14:27:00	57427.7	3.2	7.7	#967
14:27:20	57428.2	0.5	8.2	#968
14:27:40	57430.9	2.7	10.9	#969
14:29:00	57432.2	1.3	12.2	#970
14:28:20	57430.1	-2.1	10.1	#971
14:28:40	57429.0	-1.1	9.0	#972
14:29:00	57431.6	2.6	11.6	#973
14:29:20	57433.1	1.5	13.1	#974
14:29:40	57432.0	-1.1	12.0	#975
14:30:00	57432.4	0.4	12.4	#976
14:30:20	57433.2	0.8	13.2	#977
14:30:40	57434.2	1.0	14.2	#978
14:31:00	57434.5	0.3	14.5	#979
14:31:20	57432.5	-2.0	12.5	#980
14:31:40	57429.3	-3.2	9.3	#981
14:32:00	57430.3	1.0	10.3	#982
14:32:20	57430.1	-0.2	10.1	#983
14:32:40	57431.3	1.2	11.3	#984
14:33:00	57435.2	3.9	15.2	#985
14:33:20	57434.9	-0.3	14.9	#986
14:33:40	57432.6	-2.3	12.6	#987
14:34:00	57429.3	-3.3	9.3	#988
14:34:20	57426.2	-3.1	6.2	#989
14:34:40	57429.8	3.6	9.8	#990
14:35:00	57430.8	1.0	10.8	#991
14:35:20	57432.5	1.7	12.5	#992
14:35:40	57435.6	3.1	15.6	#993
14:36:00	57435.1	-0.5	15.1	#994
14:36:20	57435.9	0.8	15.9	#995
14:36:40	57434.6	-1.3	14.6	#996
14:37:00	57434.3	-0.3	14.3	#997
14:37:20	57436.1	1.8	16.1	#998
14:37:40	57438.1	2.0	18.1	#999
14:38:00	57437.1	-1.0	17.1	#1000
14:38:20	57435.7	-1.4	15.7	#1001
14:38:40	57435.4	-0.3	15.4	#1002
14:39:00	57433.0	-2.4	13.0	#1003
14:39:20	57431.8	-1.2	11.8	#1004
14:39:40	57429.3	-2.5	9.3	#1005
14:40:00	57428.8	-0.5	8.8	#1006
14:40:20	57426.8	-2.0	6.8	#1007
14:40:40	57425.7	-1.1	5.7	#1008
14:41:00	57[redacted]		3.5	#1009
14:41:20	57[redacted]		2.0	#1010
14:41:40	57[redacted]		1.5	#1011
14:42:00	57[redacted]		1.7	#1012
14:42:20	57[redacted]		2.7	#1013
14:42:40	57[redacted]		3.8	#1014
14:43:00	57424.4	0.6	4.4	#1015
14:43:20	57424.6	0.2	4.6	#1016
14:43:40	57427.3	2.7	7.3	#1017
14:44:00	57428.2	0.9	8.2	#1018
14:44:20	57429.7	1.5	9.7	#1019
14:44:40	57429.9	0.2	9.9	#1020
14:45:00	57431.3	1.4	11.3	#1021
14:45:20	57432.5	1.2	12.5	#1022
14:45:40	57432.3	-0.2	12.3	#1023
14:46:00	57431.2	-1.1	11.2	#1024
14:46:20	57430.5	-0.7	10.5	#1025
14:46:40	57430.1	-0.4	10.1	#1026
14:47:00	57429.5	-0.6	9.5	#1027
14:47:20	57428.5	-1.0	8.5	#1028
14:47:40	57428.4	-0.1	8.4	#1029

14:48:00	57427.8	-0.6	7.8	#1030
14:48:20	57428.3	0.5	8.3	#1031
14:48:40	57427.3	-1.0	7.3	#1032
14:49:00	57426.6	-0.7	6.6	#1033
14:49:20	57426.7	0.1	6.7	#1034
14:49:40	57427.1	0.4	7.1	#1035
14:50:00	57426.4	-0.7	6.4	#1036
14:50:20	57427.9	1.5	7.9	#1037
14:50:40	57428.1	0.2	8.1	#1038
14:51:00	57427.1	-1.0	7.1	#1039
14:51:20	57427.3	0.2	7.3	#1040
14:51:40	57426.2	-1.1	6.2	#1041
14:52:00	57425.4	-0.8	5.4	#1042
14:52:20	57425.4	0.0	5.4	#1043
14:52:40	57425.0	-0.4	5.0	#1044
14:53:00	57425.5	0.5	5.5	#1045
14:53:20	57425.6	0.1	5.6	#1046
14:53:40	57425.3	-0.3	5.3	#1047
14:54:00	57423.3	-2.0	3.3	#1048
14:54:20	57423.9	0.6	3.9	#1049
14:54:40	57424.7	0.8	4.7	#1050
14:55:00	57425.3	0.6	5.3	#1051
14:55:20	57425.8	0.5	5.8	#1052
14:55:40	57424.9	-0.9	4.9	#1053
14:56:00	57424.9	0.0	4.9	#1054
14:56:20	57425.4	0.5	5.4	#1055
14:56:40	57425.9	0.4	5.8	#1056
14:57:00	57424.8	-1.0	4.8	#1057
14:57:20	57423.9	-0.9	3.9	#1058
14:57:40	57421.8	-2.1	1.8	#1059
14:58:00	57422.8	1.0	2.8	#1060
14:58:20	57426.2	3.4	6.2	#1061
14:58:40	57431.9	5.7	11.9	#1062
14:59:00	57433.8	1.9	13.8	#1063
14:59:20	57431.5	-2.3	11.5	#1064
14:59:40	57427.0	-4.5	7.0	#1065
15:00:00	57425.4	-1.6	5.4	#1066
15:00:20	57426.0	0.6	6.0	#1067
15:00:40	57426.3	2.3	8.3	#1068
15:01:00	57429.6	1.3	9.6	#1069
15:01:20	57430.7	1.1	10.7	#1070
15:01:40	57429.2	-1.5	9.2	#1071
15:02:00	57428.9	-0.3	8.9	#1072
15:02:20	57428.6	-0.3	8.6	#1073
15:02:40	57428.4	-0.2	8.4	#1074
15:03:00	57[illegible]	[illegible]	[illegible].8	#1075
15:03:20	57[illegible]	[illegible]	[illegible].1	#1076
15:03:40	57[illegible]	[illegible]	[illegible].3	#1077
15:04:00	57[illegible]	[illegible]	[illegible].0	#1078
15:04:20	57[illegible]	[illegible]	[illegible].6	#1079
15:04:40	57[illegible]	[illegible]	[illegible].3	#1080
15:05:00	57426.6	-0.7	6.6	#1081
15:05:20	57427.5	0.9	7.5	#1082
15:05:40	57427.7	0.2	7.7	#1083
15:06:00	57427.8	0.1	7.8	#1084
15:06:20	57428.3	0.5	8.3	#1085
15:06:40	57428.4	0.1	8.4	#1086
15:07:00	57428.2	-0.2	8.2	#1087
15:07:20	57428.2	0.0	8.2	#1088
15:07:40	57428.4	0.2	8.4	#1089
15:08:00	57429.3	0.9	9.3	#1090
15:08:20	57429.3	0.0	9.3	#1091
15:08:40	57428.7	-0.6	8.7	#1092
15:09:00	57428.8	0.1	8.8	#1093
15:09:20	57428.1	-0.7	8.1	#1094
15:09:40	57428.6	0.5	8.6	#1095

15:10:00	57428.1	-0.5	8.1	#1096
15:10:20	57427.9	-0.2	7.9	#1097
15:10:40	57428.0	0.1	8.0	#1098
15:11:00	57429.0	1.0	9.0	#1099
15:11:20	57431.0	2.0	11.0	#1100
15:11:40	57430.3	-0.7	10.3	#1101
15:12:00	57429.9	-0.4	9.9	#1102
15:12:20	57429.0	-0.9	9.0	#1103
15:12:40	57429.3	0.3	9.3	#1104
15:13:00	57430.1	0.8	10.1	#1105
15:13:20	57430.5	0.4	10.5	#1106
15:13:40	57430.7	0.2	10.7	#1107
15:14:00	57431.4	0.7	11.4	#1108
15:14:20	57431.0	-0.4	11.0	#1109
15:14:40	57430.5	-0.5	10.5	#1110
15:15:00	57431.1	0.6	11.1	#1111
15:15:20	57432.4	1.3	12.4	#1112
15:15:40	57432.9	0.5	12.9	#1113
15:16:00	57433.6	0.7	13.6	#1114
15:16:20	57433.3	-0.3	13.3	#1115
15:16:40	57433.4	0.1	13.4	#1116
15:17:00	57433.3	-0.1	13.3	#1117
15:17:20	57433.4	0.1	13.4	#1118
15:17:40	57433.7	0.3	13.7	#1119
15:18:00	57433.7	0.0	13.7	#1120
15:18:20	57434.2	0.5	14.2	#1121
15:18:40	57433.7	-0.5	13.7	#1122
15:19:00	57433.8	0.1	13.8	#1123
15:19:20	57434.1	0.3	14.1	#1124
15:19:40	57434.2	0.1	14.2	#1125
15:20:00	57434.5	0.3	14.5	#1126
15:20:20	57435.0	0.5	15.0	#1127
15:20:40	57435.2	0.2	15.2	#1128
15:21:00	57435.3	0.1	15.3	#1129
15:21:20	57436.0	0.7	16.0	#1130
15:21:40	57436.5	0.5	16.5	#1131
15:22:00	57436.7	0.2	16.7	#1132
15:22:20	57436.6	-0.1	16.6	#1133
15:22:40	57436.7	0.1	16.7	#1134
15:23:00	57436.8	0.1	16.8	#1135
15:23:20	57436.7	-0.1	16.7	#1136
15:23:40	57437.5	0.8	17.5	#1137
15:24:00	57437.4	-0.1	17.4	#1138
15:24:20	57436.8	-0.6	16.8	#1139
15:24:40	57436.8	0.0	16.8	#1140
15:25:00	57[illegible]	[illegible]	[illegible]9	#1141
15:25:20	57[illegible]	[illegible]	[illegible]4	#1142
15:25:40	57[illegible]	[illegible]	[illegible]9	#1143
15:26:00	57[illegible]	[illegible]	[illegible]3	#1144
15:26:20	57[illegible]	[illegible]	[illegible]4	#1145
15:26:40	57[illegible]	[illegible]	[illegible]0	#1146
15:27:00	57437.4	0.4	17.4	#1147
15:27:20	57437.6	0.2	17.6	#1148
15:27:40	57438.2	0.6	18.2	#1149
15:28:00	57438.6	0.4	18.6	#1150
15:28:20	57439.1	0.5	19.1	#1151
15:28:40	57439.4	0.3	19.4	#1152
15:29:00	57439.0	-0.4	19.0	#1153
15:29:20	57438.3	-0.7	18.3	#1154
15:29:40	57439.5	1.2	19.5	#1155
15:30:00	57440.2	0.7	20.2	#1156
15:30:20	57440.4	0.2	20.4	#1157
15:30:40	57440.5	0.1	20.5	#1158
15:31:00	57440.2	-0.3	20.2	#1159
15:31:20	57440.2	0.0	20.2	#1160
15:31:40	57441.2	1.0	21.2	#1161

15:32:00	57440.5	-0.7	20.5	#1162
15:32:20	57442.2	1.7	22.2	#1163
15:32:40	57442.0	-0.2	22.0	#1164
15:33:00	57441.9	-0.1	21.9	#1165
15:33:20	57443.3	1.4	23.3	#1166
15:33:40	57443.1	-0.2	23.1	#1167
15:34:00	57442.9	-0.2	22.9	#1168
15:34:20	57443.0	0.1	23.0	#1169
15:34:40	57442.5	-0.5	22.5	#1170
15:35:00	57442.4	-0.1	22.4	#1171
15:35:20	57443.3	0.9	23.3	#1172
15:35:40	57443.2	-0.1	23.2	#1173
15:36:00	57443.5	0.3	23.5	#1174
15:36:20	57444.2	0.7	24.2	#1175
15:36:40	57444.8	0.6	24.8	#1176
15:37:00	57444.3	-0.5	24.3	#1177
15:37:20	57444.5	0.2	24.5	#1178
15:37:40	57444.4	-0.1	24.4	#1179
15:38:00	57444.6	0.2	24.6	#1180
15:38:20	57445.3	0.7	25.3	#1181
15:38:40	57444.9	-0.4	24.9	#1182
15:39:00	57444.9	0.0	24.9	#1183
15:39:20	57445.2	0.3	25.2	#1184
15:39:40	57444.1	-1.1	24.1	#1185
15:40:00	57443.7	-0.4	23.7	#1186
15:40:20	57444.3	0.6	24.3	#1187
15:40:40	57444.8	0.5	24.8	#1188
15:41:00	57445.7	0.9	25.7	#1189
15:41:20	57445.4	-0.3	25.4	#1190

EOF



RM0912A.DAT

OMNI-PLUS Tie-line MAG/VLF V12N Ser #418144
TOTAL FIELD DATA (Uncorrected)

Reference field: 0.0
Datum subtracted: 0.0Date 11 SEP 90
Operator: 3000
Records: 287
Bat: 16.3 Volt Lithium: 3.48 Volt
Last time update: 9/12 8:54:00
Start of print: 9/12 19:52:31

Line 0+00 N Date 11 SEP 90 #1

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
#1	56369.7	.00	0.0	13:18:27	88	

OMNI-PLUS Tie-line MAG/VLF V12N Ser #418144
TOTAL FIELD DATA (uncorrected)

Reference field: 0.0
Datum subtracted: 0.0Date 12 SEP 90
Operator: 3000
Records: 287
Bat: 16.3 Volt Lithium: 3.48 Volt
Last time update: 9/12 8:54:00
Start of print: 9/12 19:52:31

Line 0+00 N Date 12 SEP 90 #2

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
#2	56[redacted]			9:25:23	88	65

Line 1+50 [redacted] #3

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+50 W	57[redacted]			9:28:42	88	
0+375W	57150.5	.02	0.0	9:29:47	88	
0+25 W	57020.0	.02	0.0	9:31:13	88	
0+125W	57071.8	.02	0.0	9:31:49	88	
0+00 E	57131.2	.02	0.0	9:32:34	88	
0+125E	57374.2	.02	0.0	9:33:05	88	
0+25 E	57143.9	.02	0.0	9:33:43	88	
0+375E	57182.5	.02	0.0	9:34:22	88	
0+50 E	57150.0	.02	0.0	9:35:03	88	

Line 1+75 N Date 12 SEP 90 #12

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+50 E	57228.6	.02	0.0	9:36:07	88	
0+375E	57127.7	.02	0.0	9:37:00	88	
0+25 E	57374.9	.02	0.0	9:37:55	88	
0+125E	57307.9	.02	0.0	9:41:06	88	

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+00 E	57243.1	.02	0.0	9:41:59	88	55
0+125W	57206.4	.02	0.0	9:42:43	88	65
0+25 W	57363.3	.02	0.0	9:43:35	88	
0+375W	57142.5	.02	0.0	9:44:07	88	
0+50 W	57204.4	.02	0.0	9:44:47	88	

Line 2+00 N [illegible] #21

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+50 W	57445.[illegible]		0.0	9:46:06	88	
0+375W	57084.2	.02	0.0	9:47:05	88	65
0+25 W	56902.9	.02	0.0	9:47:46	88	
0+125W	56969.8	.02	0.0	9:48:22	88	
0+00 E	57221.2	.02	0.0	9:49:01	88	
0+125E	57211.8	.02	0.0	9:49:44	88	
0+25 E	57202.1	.02	0.0	9:50:36	88	
0+375E	57145.3	.02	0.0	9:51:18	88	55
0+50 E	57226.0	.02	0.0	9:51:55	88	

Line 2+25 N Date 12 SEP 90 #30

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+50 E	57101.4	.02	0.0	9:55:08	88	
0+375E	57116.4	.02	0.0	9:55:52	88	
0+25 E	57172.8	.02	0.0	9:57:31	88	65
0+125E	57268.2	.02	0.0	9:58:13	88	
0+00 E	57225.9	.02	0.0	9:59:01	88	
0+125W	57439.3	.02	0.0	10:00:32	88	
0+25 W	57255.7	.02	0.0	10:01:16	88	
0+375W	57288.5	.02	0.0	10:01:58	88	
0+50 W	57333.9	.02	0.0	10:02:33	88	55

Line 2+50 N Date 12 SEP 90 #39

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+50 W	57392.8	.02	0.0	10:04:38	88	
0+375W	57419.7	.02	0.0	10:05:57	88	55
0+25 W	57458.7	.02	0.0	10:06:33	88	65
0+125W	57474.3	.02	0.0	10:07:21	88	
0+00 E	57417.8	.02	0.0	10:09:17	88	
0+125E	57317.3	.02	0.0	10:10:02	88	
0+25 E	56952.5	.02	0.0	10:10:53	88	55
0+375E	56729.7	.02	0.0	10:11:55	88	
0+50 E	56851.1	.02	0.0	10:12:48	88	

Line 2+75 N Date 12 SEP 90 #48

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+50 E	57067.6	[illegible]	0.0	10:14:58	88	
0+375E	57[illegible]			10:16:53	88	
0+25 E	57[illegible]			10:17:52	88	
0+125E	57[illegible]			10:18:49	88	
0+00 E	57[illegible]			10:19:48	88	
0+125W	57[illegible]			10:23:26	88	
0+25 W	57[illegible]			10:24:47	88	
0+375W	57303.0	.02	0.0	10:25:31	88	
0+50 W	57288.8	.02	0.0	10:26:12	88	

Line 3+00 N Date 12 SEP 90 #57

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+75 W	57271.6	.02	0.0	10:28:02	88	
0+625W	57307.1	.02	0.0	10:28:55	88	
0+50 W	57237.2	.02	0.0	10:29:33	88	
0+375W	57246.3	.02	0.0	10:30:11	88	
0+25 W	56931.4	.02	0.0	10:30:51	88	
0+125W	57187.9	.02	0.0	10:31:33	88	
0+00 E	57400.8	.02	0.0	10:32:08	88	
0+125E	57484.0	.02	0.0	10:33:02	88	
0+25 E	57436.2	.02	0.0	10:33:50	88	
0+375E	57416.2	.02	0.0	10:35:25	88	

0+50 E 57180.3 .02 0.0 10:38:29 88

Line 3+25 N Date 12 SEP 90 #68

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+50 E	57411.7	.02	0.0	10:37:28	88	
0+375E	57434.7	.02	0.0	10:38:10	88	55
0+25 E	57410.1	.02	0.0	10:38:41	88	65
0+125E	57384.0	.02	0.0	10:39:35	88	
0+00 E	57353.8	.02	0.0	10:40:13	88	
0+125W	57291.8	.02	0.0	10:40:50	88	
0+25 W	57123.8	.02	0.0	10:42:19	88	65
0+375W	57188.6	.03	0.0	10:43:13	88	
0+50 W	57261.2	.02	0.0	10:43:47	88	
0+625W	57417.0	.02	0.0	10:44:29	88	
0+75 W	57427.4	.02	0.0	10:45:27	88	

Line 3+50 N Date 12 SEP 90 #79

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+75 W	57378.5	.02	0.0	10:47:13	88	
0+625W	57412.2	.02	0.0	10:47:57	88	
0+50 W	57426.8	.02	0.0	10:48:32	88	
0+375W	57418.6	.02	0.0	10:49:12	88	
0+25 W	57423.6	.02	0.0	10:49:48	88	
0+125W	57397.4	.02	0.0	10:50:30	88	
0+00 E	57367.2	.02	0.0	10:51:11	88	
0+125E	57388.3	.02	0.0	10:52:04	88	
0+25 E	57397.8	.02	0.0	10:52:44	88	
0+375E	57362.8	.02	0.0	10:53:18	88	
0+50 E	57202.2	.02	0.0	10:53:32	88	

Line 3+75 N Date 12 SEP 90 #90

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+50 E	57357.7	.02	0.0	10:54:50	88	
0+375E	57409.5	.02	0.0	10:55:32	88	55
0+25 E	57414.8	.02	0.0	10:56:04	88	65
0+125E	57398.2	.02	0.0	10:57:15	88	
0+00 E	57388.3	.02	0.0	10:58:03	88	
0+125W	57393.9	.02	0.0	10:58:47	88	
0+25 W	57427.4	.02	0.0	10:59:24	88	
0+375W	57405.5	.02	0.0	10:59:59	88	
0+50 W	57430.4	.02	0.0	11:00:47	88	
0+625W	57493.1	.02	0.0	11:01:24	88	
0+75 W	57428.6	.02	0.0	11:01:58	88	

Line 4+00 N Date 12 SEP 90 #101

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+75 W	57[illegible]			11:03:44	88	
0+625W	57[illegible]			11:04:38	88	
0+50 W	57[illegible]			11:05:14	88	
0+375W	57[illegible]			11:05:47	88	
0+25 W	57[illegible]			11:06:21	88	
0+125W	57428.4	.02	0.0	11:07:10	88	
0+00 E	57405.4	.02	0.0	11:08:05	88	
0+125E	57398.0	.02	0.0	11:31:00	88	
0+25 E	57398.5	.02	0.0	11:31:47	88	
0+375E	57401.0	.02	0.0	11:32:19	88	
0+50 E	57407.0	.02	0.0	11:32:52	88	
0+625E	57416.8	.02	0.0	11:33:40	88	
0+75 E	57436.8	.02	0.0	11:34:53	88	55
0+875E	57455.4	.02	0.0	11:35:58	88	65
1+00 E	57486.8	.02	0.0	11:37:19	88	
1+125E	57481.0	.01	0.0	11:38:22	88	65
1+25 E	57514.1	.06	0.0	11:39:02	88	
1+375E	57522.6	.02	0.0	11:39:49	88	
1+50 E	57389.8	.02	0.0	11:40:45	88	
1+625E	57376.4	.02	0.0	11:41:28	88	

1+75 E 57359.7 .02 0.0 11:42:18 88

Line 5+00 N Date 12 SEP 90 #122

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+75 E	57593.8	.02	0.0	11:48:25	88	55
0+625E	57522.6	.02	0.0	11:50:28	88	65
0+50 E	57500.1	.02	0.0	11:51:10	88	
0+375E	57484.2	.02	0.0	11:51:57	88	
0+25 E	57472.4	.02	0.0	11:52:28	88	
0+125E	57458.1	.02	0.0	11:53:39	88	
0+00 E	57457.9	.02	0.0	11:54:10	88	
0+125W	57466.0	.02	0.0	11:54:44	88	55
0+25 W	57471.2	.02	0.0	11:55:16	88	65
0+375W	57468.5	.02	0.0	11:55:51	88	

Line 6+00 N Date 12 SEP 90 #132

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+25 W	57429.5	.02	0.0	12:01:34	88	
0+125W	57438.5	.02	0.0	12:02:45	88	
0+00 E	57441.1	.02	0.0	12:03:33	88	
0+125E	57443.9	.02	0.0	12:04:22	88	
0+25 E	57439.5	.02	0.0	12:05:32	88	
0+375E	57431.2	.02	0.0	12:06:38	88	
0+50 E	57413.9	.02	0.0	12:07:14	88	
0+625E	57409.6	.02	0.0	12:08:18	88	
0+75 E	57406.8	.02	0.0	12:09:54	88	

Line 3+00 N Date 12 SEP 90 #141

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+75 E	57129.5	.02	0.0	12:19:21	88	
0+875E	57163.6	.02	0.0	12:19:56	88	
1+00 E	57147.5	.02	0.0	12:20:50	88	
1+125E	57180.8	.02	0.0	12:21:42	88	
1+25 E	56869.6	.02	0.0	12:22:41	88	55
1+375E	57396.6	.02	0.0	12:23:26	88	65
1+50 E	57227.2	.02	0.0	12:24:01	88	
1+625E	57245.3	.02	0.0	12:25:01	88	
1+75 E	57279.7	.02	0.0	12:26:00	88	
1+875E	57259.8	.02	0.0	12:26:53	88	
2+00 E	57207.0	.02	0.0	12:27:38	88	55

Line 2+00 N Date 12 SEP 90 #152

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
2+00 E	57430.7	.02	0.0	12:30:50	88	65
1+875E	57402.4	.02	0.0	12:32:04	88	
1+75 E	57[illegible]			12:33:15	88	
1+625E	57[illegible]			12:34:05	88	
1+50 E	57[illegible]			12:35:08	88	
1+375E	57[illegible]			12:36:09	88	
1+25 E	57[illegible]			12:37:07	88	
1+125E	57[illegible]			12:38:25	88	
1+00 E	57296.9	.02	0.0	12:39:33	88	
0+875E	57245.7	.02	0.0	12:40:43	88	55
0+75 E	57200.8	.02	0.0	12:42:01	88	65
0+625E	57207.9	.02	0.0	12:42:49	88	55

Line 1+25 N Date 12 SEP 90 #164

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+50 E	57047.3	.03	0.0	12:45:11	88	65
0+375E	56993.7	.02	0.0	12:46:15	88	
0+25 E	57192.0	.02	0.0	12:47:07	88	
0+125E	57382.4	.02	0.0	12:56:35	88	
0+00 E	57153.2	.02	0.0	12:57:10	88	
0+125W	56769.3	.02	0.0	12:57:46	88	
0+25 W	57123.1	.02	0.0	12:58:31	88	
0+375W	57218.8	.02	0.0	12:59:28	88	

0+50 W	57323.4	.02	0.0	13:00:03	88	

Line 1+00 N Date 12 SEP 90 #173

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+00 E	57156.3	.02	0.0	13:04:28	88	
0+125W	56751.6	.02	0.0	13:05:25	88	
0+25 W	56864.5	.02	0.0	13:05:58	88	
0+375W	57202.3	.02	0.0	13:07:11	88	
0+50 W	57322.4	.02	0.0	13:09:28	88	
0+625W	57355.9	.02	0.0	13:10:38	88	
0+75 W	57259.6	.02	0.0	13:11:23	88	
0+875W	57193.0	.03	0.0	13:12:18	88	
1+00 W	57288.3	.02	0.0	13:12:55	88	55
1+125W	56925.6	.02	0.0	13:13:29	88	65
1+25 W	57268.5	.02	0.0	13:14:13	88	
1+375W	57396.4	.02	0.0	13:15:20	88	55
1+50 W	57406.6	.02	0.0	13:16:28	88	65

Line 0+75 N Date 12 SEP 90 #186

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+50 W	57408.9	.02	0.0	13:20:58	88	55
0+375W	57577.9	.02	0.0	13:21:50	88	65
0+25 W	57687.6	.02	0.0	13:22:37	88	
0+125W	56395.6	.05	0.0	13:23:27	88	55
0+00 E	56746.9	.02	0.0	13:24:04	88	65
0+125E	57222.2	.02	0.0	13:24:38	88	
0+25 E	57339.6	.02	0.0	13:25:19	88	55
0+375E	57132.4	.02	0.0	13:26:50	88	65
0+50 E	57228.7	.02	0.0	13:27:52	88	
0+625E	57004.8	.02	0.0	13:28:26	88	
0+75 E	56952.8	.02	0.0	13:29:05	88	

Line 0+50 N Date 12 SEP 90 #197

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+75 E	57090.4	.02	0.0	13:30:23	88	
0+625E	57150.6	.02	0.0	13:31:09	88	
0+50 E	57103.4	.02	0.0	13:32:04	88	
0+375E	57747.2	.02	0.0	13:32:56	88	
0+25 E	57583.0	.02	0.0	13:33:35	88	
0+125E	57254.5	.02	0.0	13:34:15	88	
0+00 E	57074.4	.02	0.0	13:35:06	88	55
0+125W	57122.5	.02	0.0	13:35:51	88	65
0+25 W	57465.3	.02	0.0	13:37:05	88	
0+375W	57423.0	.02	0.0	13:37:57	88	
0+50 W	57400.6	.02	0.0	13:38:43	88	

Line 0+25 [illegible] #208

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+50 W	57[illegible]			13:40:15	88	
0+375W	57[illegible]			13:41:06	88	55
0+25 W	57[illegible]			13:41:55	88	65
0+125W	57048.4	.02	0.0	13:45:40	88	55
0+00 E	57114.6	.02	0.0	13:46:17	88	65
0+125E	57190.8	.02	0.0	13:46:53	88	
0+25 E	57340.0	.02	0.0	13:47:45	88	55
0+375E	57302.6	.02	0.0	13:48:46	88	65
0+50 E	56895.2	.02	0.0	13:49:18	88	
0+625E	56960.9	.02	0.0	13:49:53	88	
0+75 E	57062.5	.02	0.0	13:50:33	88	
0+875E	56955.3	.02	0.0	13:51:06	88	
1+00 E	56874.6	.02	0.0	13:51:47	88	

Line 0+00 N Date 12 SEP 90 #221

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
1+00 E	56922.8	.02	0.0	13:53:56	88	
0+875E	56932.5	.02	0.0	13:55:14	88	

POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
0+75 E	56953.2	.02	0.0	13:56:04	88	
0+625E	56915.1	.02	0.0	13:56:55	88	
0+50 E	56954.5	.02	0.0	13:57:35	88	
0+375E	57148.3	.02	0.0	13:58:34	88	
0+25 E	57483.4	.02	0.0	13:59:12	88	
0+125E	57307.9	.02	0.0	13:59:44	88	55
0+00 E	56852.9	.02	0.0	14:00:19	88	65
0+125W	57123.7	.02	0.0	14:00:50	88	
0+25 W	57326.1	.02	0.0	14:01:37	88	
0+375W	57386.1	.02	0.0	14:03:15	88	
0+50 W	57391.1	.02	0.0	14:03:50	88	
0+625W	57440.2	.02	0.0	14:04:24	88	
0+75 W	57267.5	.02	0.0	14:04:58	88	
0+875W	57334.3	.02	0.0	14:06:14	88	
1+00 W	57108.3	.03	0.0	14:06:59	88	
1+125W	57952.0	.03	0.0	14:08:04	88	
1+25 W	57209.0	.02	0.0	14:08:42	88	
1+375W	57426.2	.02	0.0	14:09:25	88	
1+50 W	57119.2	.02	0.0	14:09:58	88	
1+625W	57252.0	.02	0.0	14:11:47	88	
1+75 W	57225.7	.02	0.0	14:12:25	88	
1+875W	57393.4	.02	0.0	14:13:28	88	
2+00 W	57335.6	.02	0.0	14:14:30	88	
2+125W	57166.7	.02	0.0	14:17:27	88	
2+25 W	56953.6	.03	0.0	14:18:25	88	
2+375W	57273.2	.02	0.0	14:19:01	88	
2+50 W	57583.3	.02	0.0	14:19:48	88	

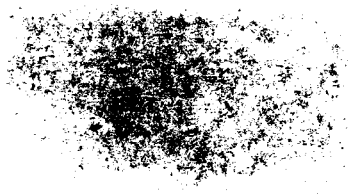
Line 1+00 S Date 12 SEP 90 #280

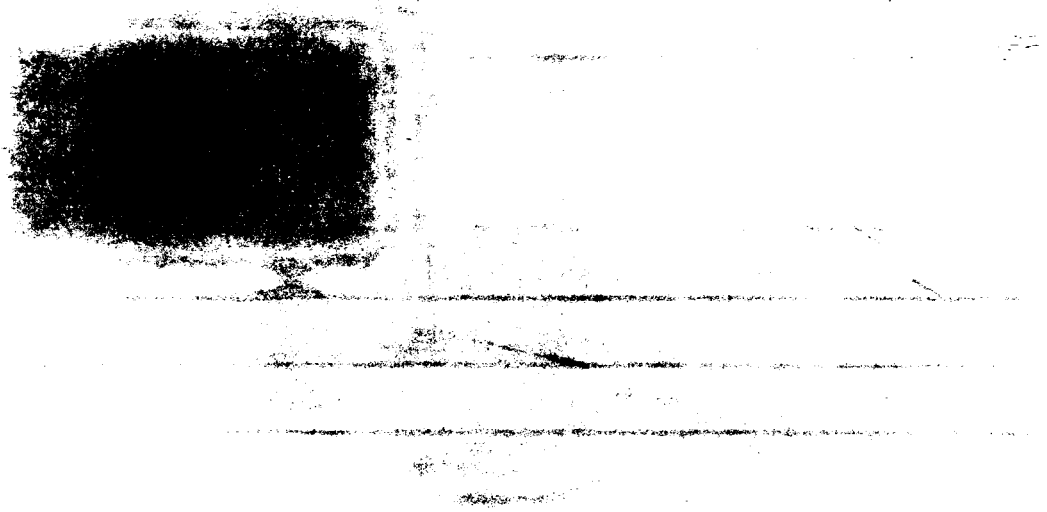
POSITION	FIELD	ERR	DRIFT	TIME	DS	CULT
2+50 W	57276.3	.02	0.0	14:24:05	88	
2+375W	56794.8	.02	0.0	14:25:55	88	
2+25 W	57121.1	.02	0.0	14:26:41	88	
2+125W	57260.6	.02	0.0	14:28:30	88	55
2+00 W	57368.5	.02	0.0	14:29:25	88	65
1+875W	57466.5	.02	0.0	14:29:57	88	
1+75 W	57297.1	.02	0.0	14:30:28	88	
1+625W	57052.5	.03	0.0	14:31:03	88	
1+50 W	57690.6	.02	0.0	14:32:15	88	
1+375W	57418.8	.02	0.0	14:33:08	88	
1+25 W	56849.6	.02	0.0	14:34:36	88	
1+125W	57027.3	.02	0.0	14:35:52	88	
1+00 W	57190.8	.02	0.0	14:36:59	88	
0+875W	57499.8	.02	0.0	14:38:03	88	
0+75 W	57422.8	.02	0.0	14:38:39	88	
0+625W	57			14:39:19	88	
0+50 W	57			14:40:20	88	
0+375W	57			14:41:02	88	
0+25 W	57			14:41:50	88	
0+125W	57			14:42:31	88	
0+00 E	56			14:43:12	88	
0+125E	57186.4	.02	0.0	14:43:55	88	
0+25 E	57416.3	.02	0.0	14:44:42	88	
0+375E	57609.0	.02	0.0	14:45:33	88	
0+50 E	57603.8	.02	0.0	14:46:27	88	
0+625E	57260.2	.02	0.0	14:51:03	88	
0+75 E	57206.2	.03	0.0	14:54:14	88	
0+875E	57278.1	.02	0.0	14:55:07	88	
1+00 E	57303.7	.02	0.0	14:55:50	88	
1+125E	57315.7	.02	0.0	14:56:41	88	
1+25 E	57344.3	.02	0.0	14:57:30	88	
1+375E	57383.3	.02	0.0	14:58:30	88	
1+50 E	57416.3	.02	0.0	14:59:29	88	
1+625E	57453.9	.02	0.0	15:03:50	88	

Line 1+00 N Date 12 SEP 90 #284

```
0+50 E 57136.3 .02      0.0 15:32:26 88
0+375E 57037.9 .02      0.0 15:34:39 88
0+25 E 57496.2 .02      0.0 15:35:26 88
0+125E 57390.5 .02      0.0 15:36:13 88

EOF
```





cm0912a.dat

```
EDA  OMNI-IV  Tie-line  MAG  Ser #418144
TOTAL FIELD DATA (Base stn. corrected)
Date: 11 SEP 90
Operator:  3000
Reference  field: 57420.0
Datum subtracted:      0.0
Records:  287
Bat:  18.4 Volt     Lithium:  3.48 Volt
Last time update:  9/12  8:54:00
Start  of  print:  9/13 13:28:50

Base stn.  Pos:      0     Line:      0
Last time update:  9/12  8:54:00
Start  of  print:  9/13 13:28:50

     #1    56369.7 .00      0.0 13:18:27 88
```

```
 JA  OMNI-IV  Tie-line  MAG  Ser #418144
TOTAL FIELD DATA (Base stn. corrected)
Date: 12 SEP 90
Operator:  3000
Reference  field: 57420.0
Datum subtracted:      0.0
Records:  287
Bat:  18.4 Volt     Lithium:  3.48 Volt
Last time update:  9/12  8:54:00
Start  of  print:  9/13 13:28:50

Base stn.  Pos:      0     Line:      0
Last time update:  9/12  8:54:00
Start  of  print:  9/13 13:28:50

     #2    56375.7 .00     -6.0  9:25:23 88

Line:     150      Date: 12 SEP 90      #3
POSITION  FIELD  ERR   DRIFT   TIME    DS
   -50   57271.8 .02     -7.3  9:28:42 88
  -375   57157.3 .02     -6.8  9:29:47 88
   -25   57029.3 .02     -9.3  9:31:13 88
  -125   57080.5 .02     -8.7  9:31:49 88
     0   57139.8 .02     -8.6  9:32:30 88
   125   57383.4 .02     -9.2  9:33:05 88
    25   57153.5 .02     -9.6  9:33:43 88
   375   57191.5 .02     -9.0  9:34:22 88
    50   57159.8 .02     -9.8  9:35:03 88

Line:     175      Date: 12 SEP 90     #12
POSITION  FIELD  ERR   DRIFT   TIME    DS
    50   57238.7 .02    -10.1  9:36:07 88
   375   57138.2 .02    -10.5  9:37:00 88
```

125	57317.6	.02	-9.7	9:41:06	88
0	57251.1	.02	-8.0	9:41:59	88
-125	57213.4	.02	-7.0	9:42:43	88
-25	57370.2	.02	-6.9	9:43:35	88
-375	57149.0	.02	-6.5	9:44:07	88
-50	57210.8	.02	-6.4	9:44:47	88

Line: 200 Date: 12 SEP 90 #21

POSITION	FIELD	ERR	DRIFT	TIME	DS
-50	57450.0	.02	-5.0	9:46:06	88
-375	57089.4	.02	-5.2	9:47:05	88
-25	56908.1	.02	-5.2	9:47:46	88
-125	56974.4	.02	-4.8	9:48:22	88
0	57225.9	.02	-4.7	9:49:01	88
125	57216.9	.02	-5.1	9:49:44	88
25	57207.4	.02	-5.3	9:50:36	88
375	57150.6	.02	-5.3	9:51:18	88
50	57232.8	.02	-4.8	9:51:55	88

Line: 225 Date: 12 SEP 90 #30

POSITION	FIELD	ERR	DRIFT	TIME	DS
50	57092.9	.02	8.5	9:55:08	88
375	57106.6	.02	9.8	9:55:52	88
25	57162.8	.02	10.0	9:57:31	88
125	57257.6	.02	10.6	9:58:13	88
0	57215.2	.02	10.7	9:59:01	88
-125	57427.7	.02	11.6	10:00:32	88
-25	57244.4	.02	11.3	10:01:16	88
-375	57276.8	.02	11.7	10:01:58	88
-50	57322.2	.02	11.7	10:02:33	88

Line: 250 Date: 12 SEP 90 #39

SITION	FIELD	ERR	DRIFT	TIME	DS
-50	57383.3	.02	9.5	10:04:38	88
-375	57412.2	.02	7.5	10:05:57	88
-25	57450.2	.02	8.5	10:06:33	88
-125	57467.1	.02	7.2	10:07:21	88
0	57412.0	.02	5.8	10:09:17	88
125	57311.3	.02	6.0	10:10:02	88
25	56946.5	.02	6.0	10:10:53	88
375	56723.5	.02	6.2	10:11:55	88
50	56844.0	.02	7.1	10:12:48	88

Line: 275 Date: 12 SEP 90 #48

POSITION	FIELD	ERR	DRIFT	TIME	DS
50	57060.3	.03	7.3	10:14:58	88
375	57147.9	.02	8.8	10:16:53	88
25	57288.7	.02	8.5	10:17:52	88
125	57299.3	.02	8.6	10:18:49	88
0	57499.9	.02	11.0	10:19:48	88
-125	57455.1	.02	12.8	10:23:26	88
-25	57385.2	.02	15.3	10:24:47	88
-375	57288.4	.02	14.6	10:25:31	88
-50	57275.0	.02	13.8	10:26:12	88

Line: 300 Date: 12 SEP 90 #57

POSITION	FIELD	ERR	DRIFT	TIME	DS
-75	57256.7	.02	14.9	10:28:02	88
-625	57294.2	.02	12.9	10:28:55	88
-50	57225.4	.02	11.8	10:29:33	88
-375	57234.8	.02	11.5	10:30:11	88
-25	56919.3	.02	12.1	10:30:51	88
-125	57175.6	.02	12.3	10:31:33	88
0	57388.1	.02	12.7	10:32:08	88
125	57472.2	.02	11.8	10:33:02	88
25	57427.3	.02	9.9	10:33:50	88

375	57408.3	.02	7.9	10:35:25	88
50	57153.5	.02	7.0	10:36:29	88

Line: 325 Date: 12 SEP 90 #68

POSITION	FIELD	ERR	DRIFT	TIME	DS
50	57404.1	.02	7.6	10:37:28	88
375	57427.0	.02	7.7	10:38:10	88
25	57402.1	.02	8.0	10:38:41	88
125	57375.0	.02	9.0	10:39:35	88
0	57345.3	.02	8.5	10:40:13	88
-125	57283.9	.02	7.9	10:40:50	88
-25	57114.8	.02	8.8	10:42:19	88
-375	57178.9	.03	9.7	10:43:13	88
-50	57251.4	.02	9.8	10:43:47	88
-625	57409.3	.02	9.7	10:44:29	88
-75	57416.3	.02	11.1	10:45:27	88

Line: 350 Date: 12 SEP 90 #79

POSITION	FIELD	ERR	DRIFT	TIME	DS
-75	57362.3	.02	13.2	10:47:13	88
-625	57404.2	.02	14.0	10:47:57	88
-50	57412.6	.02	14.2	10:48:32	88
-375	57404.7	.02	13.9	10:49:12	88
-25	57409.3	.02	14.3	10:49:48	88
-125	57382.0	.02	15.4	10:50:30	88
0	57351.4	.02	15.8	10:51:11	88
125	57368.8	.02	16.5	10:52:04	88
25	57381.3	.02	16.5	10:52:44	88
375	57345.8	.02	17.0	10:53:18	88
50	57184.7	.02	17.5	10:53:52	88

Line: 375 Date: 12 SEP 90 #90

?SITION	FIELD	ERR	DRIFT	TIME	DS
50	57339.9	.02	17.8	10:54:50	88
375	57391.9	.02	17.6	10:55:32	88
25	57397.9	.02	16.9	10:56:04	88
125	57380.8	.02	17.4	10:57:15	88
0	57370.1	.02	18.2	10:58:03	88
-125	57375.0	.02	18.9	10:58:47	88
-25	57408.0	.02	19.4	10:59:24	88
-375	57385.4	.02	20.1	10:59:59	88
-50	57410.0	.02	20.4	11:00:47	88
-625	57472.8	.02	20.3	11:01:24	88
-75	57408.2	.02	20.4	11:01:58	88

Line: 400 Date: 12 SEP 90 #101

POSITION	FIELD	ERR	DRIFT	TIME	DS
-75	57575.2	.02	20.4	11:03:44	88
-625	57487.5	.02	21.0	11:04:38	88
-50	57503.4	.02	20.1	11:05:14	88
-375	57449.1	.02	20.1	11:05:47	88
-25	57419.1	.02	19.9	11:06:21	88
-125	57407.8	.02	20.6	11:07:10	88
0	57384.5	.02	20.9	11:08:05	88
125	57392.9	.02	5.1	11:31:00	88
25	57393.9	.02	4.6	11:31:47	88
375	57396.5	.02	4.5	11:32:19	88
50	57401.9	.02	5.1	11:32:52	88
625	57411.5	.02	5.3	11:33:40	88
75	57433.8	.02	3.0	11:34:53	88
875	57453.5	.02	1.9	11:35:58	88
100	57482.8	.02	4.0	11:37:19	88
1125	57479.5	.01	1.5	11:38:22	88
125	57514.7	.06	-0.6	11:39:02	88
1375	57524.8	.02	-2.2	11:39:49	88
150	57390.8	.02	-1.0	11:40:45	88

1625	57377.7	.02	-1.3	11:41:28	88
175	57360.2	.02	-0.5	11:42:16	88

Line: 500 Date: 12 SEP 90 #122

POSITION	FIELD	ERR	DRIFT	TIME	DS
75	57599.7	.02	-5.9	11:48:25	88
625	57529.7	.02	-7.1	11:50:28	88
50	57507.6	.02	-7.5	11:51:10	88
375	57493.0	.02	-8.8	11:51:57	88
25	57481.8	.02	-9.4	11:52:28	88
125	57467.8	.02	-9.7	11:53:39	88
0	57466.5	.02	-8.6	11:54:10	88
-125	57475.0	.02	-9.0	11:54:44	88
-25	57481.4	.02	-10.2	11:55:16	88
-375	57479.4	.02	-10.9	11:55:51	88

Line: 600 Date: 12 SEP 90 #132

POSITION	FIELD	ERR	DRIFT	TIME	DS
-25	57442.3	.02	-12.8	12:01:34	88
-125	57452.3	.02	-13.8	12:02:45	88
0	57455.7	.02	-14.6	12:03:33	88
125	57458.2	.02	-14.3	12:04:22	88
25	57452.9	.02	-13.4	12:05:32	88
375	57443.6	.02	-12.4	12:06:38	88
50	57426.5	.02	-12.6	12:07:14	88
625	57422.9	.02	-13.3	12:08:18	88
75	57418.9	.02	-12.1	12:09:54	88

Line: 300 Date: 12 SEP 90 #141

POSITION	FIELD	ERR	DRIFT	TIME	DS
75	57142.8	.02	-13.3	12:19:21	88
875	57177.0	.02	-13.4	12:19:56	88
100	57161.8	.02	-14.3	12:20:50	88
1125	57195.7	.02	-14.9	12:21:42	88
125	56884.4	.02	-14.8	12:22:41	88
1375	57410.5	.02	-13.9	12:23:26	88
150	57241.9	.02	-14.7	12:24:01	88
1625	57259.6	.02	-14.3	12:25:01	88
175	57293.4	.02	-13.7	12:26:00	88
1875	57272.6	.02	-12.8	12:26:53	88
200	57220.0	.02	-13.0	12:27:38	88

Line: 200 Date: 12 SEP 90 #152

POSITION	FIELD	ERR	DRIFT	TIME	DS
200	57443.7	.02	-13.0	12:30:50	88
1875	57414.4	.02	-12.0	12:32:04	88
175	57460.2	.02	-11.1	12:33:15	88
1625	57502.7	.03	-10.1	12:34:05	88
150	57508.4	.02	-8.8	12:35:08	88
1375	57466.7	.02	-8.3	12:36:09	88
125	57434.8	.02	-9.6	12:37:07	88
1125	57368.8	.02	-10.0	12:38:25	88
100	57308.5	.02	-11.6	12:39:33	88
875	57257.1	.02	-11.4	12:40:43	88
75	57211.6	.02	-10.8	12:42:01	88
625	57217.1	.02	-9.2	12:42:49	88

Line: 125 Date: 12 SEP 90 #164

POSITION	FIELD	ERR	DRIFT	TIME	DS
50	57057.3	.03	-10.0	12:45:11	88
375	57001.5	.02	-7.8	12:46:15	88
25	57199.2	.02	-7.2	12:47:07	88
125	57385.5	.02	-3.1	12:56:35	88
0	57155.8	.02	-2.6	12:57:10	88
-125	56791.0	.02	-1.7	12:57:46	88
-25	57134.3	.02	-1.2	12:58:31	88

-375	57219.6	.02	-0.8	12:59:28	88
-50	57323.6	.02	-0.2	13:00:03	88

Line: 100 Date: 12 SEP 90 #173

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	57155.0	.02	1.3	13:04:28	88
-125	56750.4	.02	1.2	13:05:25	88
-25	56863.6	.02	0.9	13:05:58	88
-375	57201.1	.02	1.2	13:07:11	88
-50	57320.9	.02	1.5	13:09:28	88
-625	57354.4	.02	1.5	13:10:38	88
-75	57257.9	.02	1.7	13:11:23	88
-875	57191.8	.03	1.2	13:12:18	88
-100	57287.7	.02	0.6	13:12:55	88
-1125	56925.3	.02	0.3	13:13:29	88
-125	57288.9	.02	-0.4	13:14:13	88
-1375	57397.4	.02	-1.0	13:15:20	88
-150	57408.3	.02	-1.5	13:16:28	88

Line: 75 Date: 12 SEP 90 #186

POSITION	FIELD	ERR	DRIFT	TIME	DS
-50	57411.2	.02	-2.3	13:20:58	88
-375	57580.1	.02	-2.2	13:21:50	88
-25	57689.5	.02	-1.9	13:22:37	88
-125	56397.9	.05	-2.3	13:23:27	88
0	56748.9	.02	-2.0	13:24:04	88
125	57224.2	.02	-2.0	13:24:38	88
25	57342.2	.02	-2.6	13:25:19	88
375	57134.1	.02	-1.7	13:26:50	88
50	57229.4	.02	-0.7	13:27:52	88
625	57004.5	.02	0.3	13:28:26	88
75	56952.0	.02	0.8	13:29:05	88

Line: 50 Date: 12 SEP 90 #197

POSITION	FIELD	ERR	DRIFT	TIME	DS
75	57090.0	.02	0.4	13:30:23	88
625	57150.6	.02	0.0	13:31:09	88
50	57104.7	.02	-1.3	13:32:04	88
375	57749.3	.02	-2.1	13:32:56	88
25	57586.6	.02	-3.6	13:33:35	88
125	57258.8	.02	-4.3	13:34:15	88
0	57077.3	.02	-2.9	13:35:06	88
-125	57125.3	.02	-2.8	13:35:51	88
-25	57469.1	.02	-3.8	13:37:05	88
-375	57426.4	.02	-3.4	13:37:57	88
-50	57405.7	.02	-5.1	13:38:43	88

Line: 25 Date: 12 SEP 90 #208

POSITION	FIELD	ERR	DRIFT	TIME	DS
-50	57402.6	.02	-4.4	13:40:15	88
-375	57402.1	.02	-5.0	13:41:06	88
-25	57401.4	.02	-4.6	13:41:55	88
-125	57051.2	.02	-2.8	13:45:40	88
0	57118.5	.02	-3.9	13:46:17	88
125	57193.1	.02	-2.3	13:46:53	88
25	57344.8	.02	-4.8	13:47:45	88
375	57306.0	.02	-3.4	13:48:46	88
50	56899.1	.02	-3.9	13:49:18	88
625	56966.4	.02	-5.5	13:49:53	88
75	57068.8	.02	-6.3	13:50:33	88
875	56960.5	.02	-5.2	13:51:06	88
100	56878.5	.02	-3.9	13:51:47	88

Line: 0 Date: 12 SEP 90 #221

POSITION	FIELD	ERR	DRIFT	TIME	DS
100	56924.9	.02	-2.1	13:53:54	88

875	56933.2	.02	-0.7	13:55:14	88
75	56954.5	.02	-1.3	13:56:04	88
625	56913.8	.02	1.3	13:56:55	88
50	56954.9	.02	-0.4	13:57:35	88
375	57144.6	.02	3.7	13:58:34	88
25	57481.7	.02	1.7	13:59:12	88
125	57306.8	.02	1.1	13:59:44	88
0	56851.2	.02	1.7	14:00:19	88
-125	57124.7	.02	-1.0	14:00:50	88
-25	57325.4	.02	0.7	14:01:37	88
-375	57388.1	.02	-2.0	14:03:15	88
-50	57393.2	.02	-2.1	14:03:50	88
-625	57441.9	.02	-1.7	14:04:24	88
-75	57268.5	.02	-1.0	14:04:58	88
-875	57334.4	.02	-0.1	14:06:14	88
-100	57106.0	.03	2.3	14:06:59	88
-1125	57949.2	.05	2.8	14:08:04	88
-125	57203.5	.02	5.5	14:08:42	88
-1375	57420.3	.02	5.9	14:09:25	88
-150	57112.2	.02	7.0	14:09:58	88
-1625	57247.4	.02	4.6	14:11:47	88
-175	57219.3	.02	6.4	14:12:25	88
-1875	57386.5	.02	6.9	14:13:28	88
-200	57327.8	.02	7.8	14:14:30	88
-2125	57157.8	.02	8.9	14:17:27	88
-225	56948.9	.03	6.7	14:18:25	88
-2375	57265.1	.02	8.1	14:19:01	88
-250	57574.0	.02	9.3	14:19:48	88

Line: -100 Date: 12 SEP 90 #250

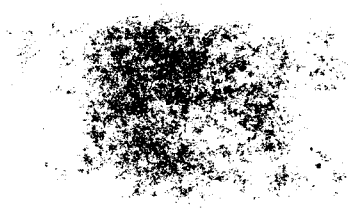
POSITION	FIELD	ERR	DRIFT	TIME	DS
-250	57268.0	.02	8.3	14:24:05	88
-2375	56785.2	.02	9.6	14:25:55	88
-225	57116.3	.02	4.8	14:26:41	88
-2125	57251.0	.02	9.6	14:28:30	88
-200	57355.6	.02	12.9	14:29:25	88
-1875	57454.2	.02	12.3	14:29:57	88
-175	57283.5	.02	13.6	14:30:28	88
-1625	57038.2	.03	14.3	14:31:03	88
-150	57680.4	.02	10.2	14:32:15	88
-1375	57403.7	.02	15.1	14:33:08	88
-125	56840.6	.02	9.0	14:34:36	88
-1125	57012.0	.02	15.3	14:35:52	88
-100	57176.4	.02	14.4	14:36:59	88
-875	57482.8	.02	17.0	14:38:03	88
-75	57407.3	.02	15.5	14:38:39	88
-625	57422.3	.02	12.0	14:39:19	88
-50	57223.8	.02	6.8	14:40:20	88
-375	57345.6	.02	3.4	14:41:02	88
-25	57465.6	.02	1.6	14:41:50	88
-125	57285.6	.03	3.2	14:42:31	88
0	56838.4	.03	4.5	14:43:12	88
125	57178.5	.02	7.9	14:43:55	88
25	57406.3	.02	10.0	14:44:42	88
375	57596.6	.02	12.4	14:45:33	88
50	57593.4	.02	10.4	14:46:27	88
625	57253.1	.02	7.1	14:51:03	88
75	57202.5	.03	3.7	14:54:14	88
875	57272.7	.02	5.4	14:55:07	88
100	57298.8	.02	4.9	14:55:50	88
1125	57310.0	.02	5.7	14:56:41	88
125	57341.4	.02	2.9	14:57:30	88
1375	57374.3	.02	9.0	14:58:30	88
150	57406.6	.02	9.7	14:59:29	88
1625	57446.3	.02	7.6	15:03:50	88

```
Line:     100      Date: 12 SEP 90    #284
POSITION  FIELD   ERR    DRIFT    TIME     DS
    50   57114.1 .02     22.2 15:32:26 88
    375  57015.3 .02     22.6 15:34:39 88
    25   57472.9 .02     23.3 15:35:26 88
    125  57366.6 .02     23.9 15:36:13 88

Checksum Error! Record #288

Line:       0      Date: 12 SEP 90    #288
POSITION  FIELD   ERR    DRIFT    TIME     DS
     0        0.0 .00      0.0  0:00:00  0
              0.0


EOF
```



VNAA 0912·DA

OMNI-PLUS Tie-line MAG/VLF V12N Ser #418144
VLF TOTAL FIELD DATA (uncorrected)
Date 11 SEP 90
Operator: 3000
Records: 287
Bat: 13.4 Volt Lithium: 3.48 Volt
Last time update: 9/12 8:54:00
Start of print: 9/12 19:57:27

Line 0+00 N Date 11 SEP 90 24.0 #1

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT S	DIR	4-FRA	5-FRA
#1	70.0	0.2	3588.	14.0	13:18:27	99	0.0 !		

OMNI-PLUS Tie-line MAG/VLF V12N Ser #418144
VLF TOTAL FIELD DATA (uncorrected)
Date 12 SEP 90
Operator: 3000
Records: 287
Bat: 13.4 Volt Lithium: 3.48 Volt
Last time update: 9/12 8:54:00
Start of print: 9/12 19:57:27

Line 0+00 N Date 12 SEP 90 24.0 #2

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT S	DIR	4-FRA	5-FRA
#2	70.0	0.2	3647.	12.0	9:25:23	65 99	0.0 !		

Line 1+50 N Date 12 SEP 90 24.0 #3

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT S	DIR	4-FRA	5-FRA
0+50 W	[redacted]			5.2	9:28:42	76	-62.3		
0+375W				8.0	9:29:47	54	-73.2		
0+25 W				6.5	9:31:13	39	-68.4		
0+125W				8.5	9:31:49	65	-73.6	1.8	
0+00 E				9.8	9:32:30	75	-66.5	3.8	2.8
0+125E				21.0	9:33:05	54	-66.8	5.8	4.8
0+25 E	-30.3	-0.4	6.36	-16.8	9:33:43	49	-61.9	-0.5	2.6
0+375E	-29.1	1.1	6.43	-16.2	9:34:22	65	-62.7	-7.8	-4.2
0+50 E	-27.2	3.2	6.41	-15.2	9:35:03	34	-63.5	-6.4	-7.1

Line 1+75 N Date 12 SEP 90 24.0 #12

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT S	DIR	4-FRA	5-FRA
0+50 E	-28.0	-0.6	6.09	-15.6	9:36:07	64	-66.5		
0+375E	-31.4	-2.6	6.08	-17.4	9:37:00	33	-60.6		
0+25 E	-34.2	-3.1	6.09	-18.9	9:37:55	44	-71.6		
0+125E	-57.0	-7.0	6.17	-29.8	9:41:06	22	-61.9	-15.7	
0+00 E	-38.9	-4.1	6.11	-21.2	9:41:59	55 43	-67.9	-14.7	-15.2
0+125W	-37.1	-2.6	6.16	-20.3	9:42:43	65 43	-71.7	7.2	-3.8
0+25 W	-30.8	-6.5	6.20	-17.2	9:43:35	39	-68.6	13.5	10.3
0+375W	-27.4	-4.5	6.39	-15.3	9:44:07	43	-71.9	9.0	11.2

Line 2+00 N Date 12 SEP 90 24.0 #21

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 W	-22.4	-4.2	6.22	-12.6	9:46:06		59	-71.3		
0+375W	-25.0	-3.0	6.28	-14.0	9:47:05	65	49	-67.3		
0+25 W	-26.3	-0.5	6.39	-14.7	9:47:46		69	-71.4		
0+125W	-29.2	[illegible]	6.25	-16.3	9:48:22		55	-69.2	4.4	
0+00 E	-39.1	[illegible]	6.48	-21.3	9:49:01		43	-66.8	8.9	6.6
0+125E	-36.8	[illegible]	6.58	-20.2	9:49:44		54	-68.1	10.5	9.7
0+25 E	-33.7	[illegible]	6.44	-18.7	9:50:36		29	-59.1	1.3	5.9
0+375E	-37.9	-10.1	6.38	-20.9	9:51:18	55	55	-57.2	-1.9	-0.3
0+50 E	-33.5	-9.9	6.41	-18.7	9:51:55		44	-53.9	0.7	-0.6

Line 2+25 N Date 12 SEP 90 24.0 #30

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 E	-32.8	-2.0	6.35	-18.1	9:55:08		23	-67.9		
0+375E	-32.4	-5.3	6.27	-18.0	9:55:52		33	-70.2		
0+25 E	-38.8	-5.9	6.19	-19.7	9:57:31	65	23	-73.4		
0+125E	-32.1	-3.0	6.06	-17.8	9:58:13		54	-72.6	-1.4	
0+00 E	-32.1	-3.1	6.08	-17.8	9:59:01		33	-80.7	2.1	0.3
0+125W	-32.8	-4.9	5.93	-18.2	10:00:32		43	-69.0	1.5	1.8
0+25 W	-29.7	-2.3	5.93	-16.5	10:01:16		53	-69.6	0.9	1.2
0+375W	-28.2	-4.1	6.00	-15.8	10:01:58		24	-77.2	3.7	2.3
0+50 W	-27.1	-10.6	5.95	-15.3	10:02:33	55	44	-75.4	3.6	3.6

Line 2+50 N Date 12 SEP 90 24.0 #39

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 W	-27.4	-11.2	6.03	-15.5	10:04:38		64	-78.2		
0+375W	-30.8	-10.6	5.86	-17.3	10:05:57	55	55	-74.6		
0+25 W	-35.3	-4.7	5.81	-19.4	10:06:33	65	53	-76.6		
0+125W	-38.1	-12.	5.82	-21.1	10:07:21		45	-73.5	7.7	
0+00 E	-34.5	-8.	5.92	-19.1	10:09:17		17	-63.9	3.5	5.6
0+125E	-34.6	-7.	6.03	-19.1	10:10:02		47	-70.6	-2.3	0.6
0+25 E	-33.6	-12.	6.21	-18.8	10:10:53	55	19	-53.0	-2.3	-2.3
0+375E	-30.5	-11.	6.39	-17.2	10:11:55		29	-55.1	-2.2	-2.3
0+50 E	-30.1	-9.	6.51	-16.8	10:12:48		39	-60.4	-3.9	-3.1

Line 2+75 N Date 2 SEP 90 24.0 #48

POSITION	I/P	QUA	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
E	-30.7	-1.	6.48	-17.0	10:14:58		24	-81.9		
E	-42.2	-8.	6.43	-23.0	10:16:53		3	-68.2		
	-43.1	-11.	6.29	-23.5	10:17:52		23	-67.0		
	-44.2	-9.	6.21	-24.0	10:18:49		13	-77.1	-7.5	
	-47.0	-13.	6.13	-25.5	10:19:48		53	-73.5	-3.0	-5.3
	-43.2	[illegible]	[illegible]	23.5	10:23:26		53	-77.8	-1.5	-2.3
	[illegible]	[illegible]	[illegible]	23.0	10:24:47		33	-81.8	3.0	0.7
	[illegible]	[illegible]	[illegible]	21.5	10:25:31		24	-83.3	4.5	3.7
	[illegible]	[illegible]	[illegible]	15.7	10:26:12		24	-88.3	9.3	6.9

[illegible] 24.0 #57

			.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
			-8.4	6.72	-8.8	10:28:02		49	-81.0	
			-10.8	6.62	-12.2	10:28:55		25	-69.7	
			13.4	6.50	-14.3	10:29:33		25	-74.9	
			4.9	6.53	-15.3	10:30:11		39	-81.5	8.6
			.7	6.70	-19.5	10:30:51		16	-71.8	8.3	8.4
			7	6.72	-21.8	10:31:33		26	-71.1	11.7	10.0
			3	6.61	-21.6	10:32:08		44	-68.6	8.6	10.1
				6.59	-21.5	10:33:02		35	-66.2	1.8	5.2
				6.56	-21.6	10:33:50		39	-67.2	-0.3	0.7
				6.62	-21.5	10:35:25		39	-65.3	0.0	-0.2
				6.61	-18.1	10:36:29		49	-56.5	-3.5	-1.8

90 24.0 #68

				.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA

0+375E	-32.7	-1.5	6.23	-18.1	10:38:10	55	43	-67.6		
0+25 E	-34.2	-4.4	6.21	-18.9	10:38:41	65	54	-70.4		
0+125E	-39.2	-7.8	6.25	-21.5	10:39:35		23	-71.6	-6.1	
0+00 E	-36.7	-7.0	6.29	-20.2	10:40:13		34	-79.9	-4.7	-5.4
0+125W	-35.7	-7.4	6.55	-19.7	10:40:50		23	-79.4	0.5	-2.1
0+25 W	-24.7	-7.3	6.58	-13.9	10:42:19	65	5	82.2	8.1	4.3
0+375W	-18.4	[illegible]	6.85	-10.5	10:43:13		17	-80.1	15.5	11.8
0+50 W	-11.1	[illegible]	6.81	-6.3	10:43:47		48	-89.7	16.3	16.1
0+625W	-6.3	[illegible]	6.69	-3.6	10:44:29		36	89.4	14.5	15.6
0+75 W	0.1	[illegible]	6.47	0.0	10:45:27		56	84.9	13.2	13.8

Line 3+50 N Date 12 SEP 90 24.0 #79

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+75 W	-3.8	0.4	5.87	-2.2	10:47:13		48	-69.2		
0+625W	-7.3	2.4	5.90	-4.1	10:47:57		66	-72.1		
0+50 W	-5.4	3.0	5.90	-3.0	10:48:32		75	-76.6		
0+375W	-5.9	3.5	5.99	-3.4	10:49:12		46	-76.8	0.1	
0+25 W	-12.6	0.8	6.01	-7.2	10:49:48		33	-78.5	3.5	1.8
0+125W	-20.6	-1.3	6.05	-11.6	10:50:30		45	-78.6	12.4	7.9
0+00 E	-27.5	-4.8	6.01	-15.4	10:51:11		44	-73.1	16.4	14.4
0+125E	-28.6	-5.9	6.09	-16.1	10:52:04		36	-65.1	12.7	14.8
0+25 E	-28.0	-4.1	6.10	-15.6	10:52:44		36	-65.5	4.7	8.7
0+375E	-27.3	-2.2	6.15	-15.3	10:53:18		28	-66.7	-0.6	2.0
0+50 E	-30.8	1.2	6.07	-17.1	10:53:52		43	-72.6	0.7	0.0

Line 3+75 N Date 12 SEP 90 24.0 #90

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 E	-27.1	4.0	5.71	-15.1	10:54:50		54	-75.1		
0+375E	-21.0	2.8	5.82	-11.9	10:55:32	55	59	-75.8		
0+25 E	-28.1	0.1	5.98	-15.7	10:56:04	65	34	-73.5		
0+125E	-29.4	-2.1	6.03	-16.4	10:57:15		33	-83.5	-5.1	
0+00 E	-24.9	-6.0	5.98	-14.0	10:58:03		15	-88.3	-2.8	-4.0
0+125W	-19.1	-5.7	5.85	-10.8	10:58:47		44	-86.9	7.3	2.2
0+25 W	-13.5	-5.2	5.63	-7.7	10:59:24		33	89.6	11.9	9.6
0+375W	-12.4	-5.0	5.60	-7.1	10:59:59		45	-84.8	10.0	10.9
0+50 W	-8.9	-2.0	5.61	-5.0	11:00:47		55	-81.7	6.4	8.2
0+625W	-10.2	-0.8	5.64	-5.8	11:01:24		35	-83.9	4.0	5.2
0+75 W	-4.0	-1.6	5.64	-2.3	11:01:58		66	-78.1	4.0	4.0

Line 4+00 N Date 12 SEP 90 24.0 #101

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+75 W	-13.7	-3.8	5.61	-7.8	11:03:44		45	-73.4		
0+625W	-16.9	-4.0	5.57	-9.6	11:04:38		65	-75.4		
0+50 W	-21.0	-4.9	5.54	-11.9	11:05:14		64	-71.2		
0+375W	[illegible]			0.4	11:05:47		45	-71.6	4.9	
0+25 W	[illegible]			1.0	11:06:21		46	-73.5	-0.1	2.4
0+125W	[illegible]			2.7	11:07:10		57	-72.7	1.4	0.6
0+00 E	[illegible]			6.8	11:08:05		43	-70.9	8.1	4.7
0+125E	[illegible]			4.4	11:31:00		26	-73.3	7.5	7.8
0+25 E	[illegible]			3.6	11:31:47		55	-70.0	-1.5	3.0
0+375E	-26.0	[illegible]		4.6	11:32:19		45	-68.2	-3.0	-2.3
0+50 E	-28.5	3.4	5.55	-15.9	11:32:52		64	-71.1	2.5	-0.3
0+625E	-30.6	2.9	5.44	-17.0	11:33:40		55	-73.0	4.7	3.6
0+75 E	-35.4	1.8	5.41	-19.5	11:34:53	55	69	-71.0	6.0	5.3
0+875E	-37.3	1.4	5.33	-20.5	11:35:58	65	49	-70.8	7.1	6.5
1+00 E	-38.5	1.2	5.28	-21.0	11:37:19		29	-70.5	5.0	6.0
1+125E	-41.1	0.4	5.28	-22.3	11:38:22	65	39	-68.9	3.3	4.1
1+25 E	-44.4	0.4	5.18	-23.9	11:39:02		29	-70.1	4.7	4.0
1+375E	-47.7	0.0	5.10	-30.1	11:39:49		44	-75.8	10.7	7.7
1+50 E	-52.2	-1.5	5.05	-27.5	11:40:45		46	-78.0	11.4	11.0
1+625E	-55.1	-2.0	5.02	-28.8	11:41:28		45	-75.0	2.3	6.8
1+75 E	-59.2	-3.8	5.07	-30.6	11:42:16		54	-73.2	1.8	2.0

Line 5+00 N Date 12 SEP 90 24.0 #122

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+625E	-16.3	18.4	5.53	-10.7	11:50:28	65	44	-84.5		
0+50 E	-17.0	17.4	5.64	-9.9	11:51:10		54	-77.0		
0+375E	-17.3	14.8	5.72	-10.0	11:51:57		58	-71.8	3.8	
0+25 E	-19.5	11.1	5.81	-11.1	11:52:28		68	-74.7	-0.5	1.6
0+125E	-22.6	6.0	5.92	-12.7	11:53:39		68	-73.2	-3.9	-2.2
0+00 E	-30.1	-1.0	5.86	-16.7	11:54:10		65	-69.4	-8.3	-6.1
0+125W	-34.5	[illegible]	5.65	-19.1	11:54:44	55	63	-72.9	-12.0	-10.2
0+25 W	-36.7	[illegible]	5.58	-20.2	11:55:16	65	64	-64.8	-9.9	-11.0
0+375W	-32.9	[illegible]	5.44	-18.2	11:55:51		46	-84.2	-2.6	-6.3

Line 6+00 N Date 12 SEP 90 24.0 #132

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+25 W	-35.1	0.1	6.10	-24.2	12:01:34		64	-68.6		
0+125W	-34.6	0.2	6.17	-19.1	12:02:45		48	-71.3		
0+00 E	-34.1	3.0	6.16	-18.8	12:03:33		65	-70.9		
0+125E	-32.6	7.1	6.13	-18.1	12:04:22		66	-73.8	-6.4	
0+25 E	-32.6	9.4	6.11	-16.2	12:05:32		44	-72.9	-1.6	-4.0
0+375E	-32.8	11.4	6.08	-18.4	12:06:38		56	-74.3	-0.3	-1.0
0+50 E	-34.8	14.6	6.00	-17.5	12:07:14		57	-76.4	1.6	0.6
0+625E	-37.1	18.3	5.94	-20.7	12:08:16		54	-79.8	3.6	2.6
0+75 E	-37.0	16.5	5.95	-20.8	12:09:54		69	82.0	3.6	3.6

Line 3+00 N Date 12 SEP 90 24.0 #141

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+75 E	-24.2	4.3	6.06	-13.6	12:19:21		64	-66.2		
0+875E	-24.9	4.1	5.92	-14.0	12:19:56		65	-60.9		
1+00 E	-27.7	2.5	5.67	-15.5	12:20:50		44	-66.3		
1+125E	-30.0	3.8	5.54	-16.7	12:21:42		63	-68.3	4.6	
1+25 E	-31.8	3.0	5.46	-17.6	12:22:41	35	55	-65.1	4.8	4.7
1+375E	-32.1	3.4	5.40	-17.8	12:23:26	65	54	-66.4	3.2	4.0
1+50 E	-35.7	5.3	5.24	-19.7	12:24:01		63	-63.5	3.2	3.2
1+625E	-36.4	7.3	5.22	-20.0	12:25:01		54	-61.8	4.3	3.7
1+75 E	-41.0	8.2	5.18	-22.4	12:26:00		53	-64.3	4.9	4.6
1+875E	-47.7	6.9	5.14	-25.6	12:26:53		64	-67.7	8.3	6.6
2+00 E	-54.9	3.2	5.25	-28.8	12:27:38	55	63	-60.1	12.0	10.1

Line 2+00 N Date 12 SEP 90 24.0 #152

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
2+00 E	-50.0	9.4	5.15	-26.7	12:30:50	65	54	-68.9		
1+875E	-44.7	10.7	5.23	-24.3	12:32:04		43	-69.2		
1+75 E	-41.4	9.3	5.40	-22.6	12:33:15		46	-69.6		
1+625E	-37.5	9.1	5.47	-20.7	12:34:05		44	-73.0	7.7	
1+50 E	-34.1	9.3	5.65	-18.9	12:35:08		54	-75.7	7.3	7.5
1+375E	-30.3	9.8	5.79	-17.0	12:36:09		44	-74.2	7.4	7.3
1+25 E	-27.4	[illegible]	[illegible]	-15.5	12:37:07		54	-72.0	7.1	7.2
1+125E	-25.[illegible]	[illegible]	[illegible]	-14.1	12:38:25		54	-74.0	6.3	6.7
1+00 E	-23.[illegible]	[illegible]	[illegible]	-13.9	12:39:33		44	-67.9	4.5	5.4
0+875E	-23.[illegible]	[illegible]	[illegible]	-14.4	12:40:43	55	34	-78.8	1.3	2.9
0+75 E	-24.[illegible]	[illegible]	[illegible]	-15.6	12:42:01	65	54	-81.0	-2.0	-0.4
0+625E	-25.[illegible]	[illegible]	[illegible]	-17.0	12:42:49	55	34	-73.4	-4.3	-3.2

Line 1+25 N Date 12 SEP 90 24.0 #164

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 E	-33.2	-1.6	7.00	-18.3	12:45:11	65	57	-67.9		
0+375E	-36.5	-1.8	6.88	-20.0	12:46:15		45	-70.8		
0+25 E	-38.8	-8.0	6.75	-21.3	12:47:07		67	-68.3		
0+125E	-38.4	-4.9	6.54	-21.0	12:56:35		66	-72.9	-4.0	
0+00 E	-37.9	-1.6	6.43	-20.7	12:57:10		65	-70.4	-0.4	-2.2
0+125W	-34.4	1.8	6.39	-19.0	12:57:46		64	-77.1	2.6	1.1
0+25 W	-30.3	-3.9	6.33	-16.8	12:58:31		65	-75.2	5.9	4.2
0+375W	-26.1	-0.3	6.30	-14.6	12:59:28		64	-82.6	8.3	7.1
0+50 W	-23.0	1.7	6.30	-12.9	13:00:03		54	-83.2	8.3	8.3

Line 1+00 N Date 12 SEP 90 24.0 #173

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA

0+125W	-29.5	4.6	6.43	-16.4	13:05:25		55	-74.9			
0+25 W	-28.5	2.8	6.35	-15.9	13:05:58		74	-81.9			
0+375W	-17.4	3.6	6.25	-9.8	13:07:11		65	-82.4	8.7		
0+50 W	-15.6	6.3	6.41	-8.9	13:09:28		43	-79.9	13.6	11.1	
0+625W	-14.2	7.7	6.62	-8.1	13:10:38		55	-80.7	8.7	11.1	
0+75 W	-13.9	5.7	6.84	-7.9	13:11:23		58	-79.7	2.7	5.7	
0+875W	-16.0	[illegible]	7.03	-9.1	13:12:18		56	-75.2	0.0	1.3	
1+00 W	-20.9	[illegible]	7.27	-11.8	13:12:55	55	57	-70.9	-4.9	-2.5	
1-125W	-24.9	[illegible]	7.24	-14.1	13:13:29	65	56	-74.3	-8.9	-6.9	
1+25 W	-26.7	[illegible]	7.29	-15.0	13:14:13		66	-82.4	-8.2	-8.6	
1+375W	-24.7	-8.0	7.26	-14.0	13:15:20	55	54	-83.1	-3.1	-5.7	
1-50 W	-20.9	-5.9	7.25	-11.8	13:16:28	65	56	-89.7	3.3	0.1	

Line 0+75 N Date 12 SEP 90 24.0 #186

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 W	-9.2	5.9	7.90	-5.3	13:20:58	55	66	-82.1		
0+375W	-20.5	3.4	8.34	-11.6	13:21:50	65	67	-84.8		
0+25 W	-51.2	-12.6	8.03	-27.4	13:22:37		54	-61.0		
0+125W	-32.3	0.8	7.32	-17.9	13:23:27	55	58	-62.6	26.4	
0+00 E	-30.9	2.8	7.00	-17.2	13:24:04	65	65	-55.0	-3.9	12.2
0+125E	-30.4	4.3	6.73	-16.9	13:24:38		65	-56.3	-11.2	-7.6
0+25 E	-33.7	1.3	6.69	-18.6	13:25:19	55	64	-63.8	0.4	-5.4
0+375E	-33.0	-2.1	6.80	-18.2	13:26:50	65	64	-61.9	2.7	1.5
0+50 E	-26.8	5.8	6.88	-15.0	13:27:52		65	-63.0	-2.3	0.2
0+625E	-27.2	4.1	6.75	-15.2	13:28:26		45	-53.1	-6.6	-4.5
0+75 E	-26.8	1.3	6.69	-15.0	13:29:05		79	-50.8	-3.0	-4.8

Line 0+50 N Date 12 SEP 90 24.0 #197

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+75 E	-24.5	3.0	6.57	-13.8	13:30:23		68	-67.5		
0+625E	-25.9	4.5	6.54	-14.5	13:31:09		66	-65.5		
0+50 E	-28.0	1.7	6.64	-15.6	13:32:04		55	-59.1		
0+375E	-31.7	-1.4	6.56	-17.6	13:32:56		66	-64.6	-4.9	
0+25 E	-31.4	1.6	6.47	-17.4	13:33:35		66	-69.3	-4.9	-4.9
0+125E	-29.3	3.8	6.55	-16.3	13:34:15		59	-64.0	-0.5	-2.7
0+00 E	-29.8	2.8	6.78	-16.6	13:35:06	55	68	-65.3	2.1	0.8
0+125W	-33.9	-1.1	6.84	-18.7	13:35:51	65	59	-61.0	-1.6	0.2
0+25 W	-43.5	-9.8	6.68	-23.7	13:37:05		56	-66.7	-9.5	-5.6
0+375W	-47.8	-9.1	6.66	-25.7	13:37:57		54	-72.7	-14.1	-11.8
0+50 W	-43.0	-7.4	6.81	-23.3	13:38:43		55	-67.9	-6.6	-10.4

Line 0+25 N Date 12 SEP 90 24.0 #208

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 W	-35.6	[illegible]	6.37	-24.5	13:40:15		64	-64.6		
0+375W	-34	[illegible]		20.1	13:41:06	55	65	-58.2		
0+25 W	[illegible]			9.7	13:41:55	65	66	-52.1		
0+125W	[illegible]			5.5	13:45:40	55	65	-48.1	-9.4	
0+00 E	[illegible]			2:9	13:46:17	65	45	-54.6	-11.4	-10.4
0+125E	[illegible]			2.4	13:46:53		56	-53.5	-9.9	-10.7
0+25 E	[illegible]			4.5	13:47:45	55	66	-61.9	-1.5	-5.7
0+375E	-28.7	[illegible]		6.1	13:48:46	65	64	-58.7	5.3	1.9
0+50 E	-26.1	1.7	7.25	-14.6	13:49:18		54	-57.3	3.8	4.5
0+625E	-24.5	3.4	7.26	-13.8	13:49:53		67	-52.4	-2.2	0.8
0+75 E	-25.2	3.1	7.25	-14.2	13:50:33		66	-54.1	-2.7	-2.5
0+875E	-24.6	2.0	7.14	-13.8	13:51:06		77	-54.7	-0.4	-1.6
1+00 E	-33.4	0.5	7.13	-18.5	13:51:47		44	-57.0	4.3	1.9

Line 0+00 N Date 12 SEP 90 24.0 #221

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
1+00 E	-32.5	-2.5	7.09	-18.0	13:53:56		65	-67.6		
0+875E	-31.5	-3.8	7.18	-17.5	13:55:14		45	-61.9		
0+75 E	-30.0	-2.3	7.25	-16.7	13:56:04		68	-64.8		
0+625E	-30.3	-0.3	7.24	-16.8	13:56:55		66	-62.2	2.0	
0+50 E	-31.7	-1.9	7.17	-17.6	13:57:35		69	-61.1	-0.2	0.9
0+375E	-31.5	-4.7	7.10	-17.5	13:58:34		56	-65.1	-1.6	-0.9

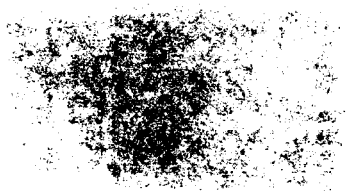
0+25 E	-27.7	-1.8	7.00	-16.3	13:57:12		68	-68.3	0.4	-0.8	
0+125E	-28.3	1.3	7.04	-15.8	13:59:44	55	57	-63.3	2.8	1.6	
0+00 E	-28.6	-1.2	7.32	-16.0	14:00:19	65	58	-64.5	2.2	2.5	
0+125W	-28.6	3.0	7.31	-15.9	14:00:50		67	-62.2	0.4	1.3	
0+25 W	-33.8	0.1	7.15	-23.6	14:01:37		67	-67.5	-7.7	-3.7	
0+375W	-32.5	1.4	6.99	-18.0	14:03:15		56	-69.4	-9.7	-8.7	
0+50 W	-30.0	[illegible]	6.82	-16.7	14:03:50		67	-70.7	4.8	-2.5	
0+625W	-26.1	[illegible]	6.84	-14.7	14:04:24		67	-68.1	10.2	7.5	
0+75 W	-23.2	[illegible]	7.11	-13.1	14:04:58		69	-67.4	6.9	8.3	
0+875W	-28.1	[illegible]	6.82	-15.7	14:06:14		64	-67.5	2.6	4.7	
1+00 W	-27.4	[illegible]	6.93	-15.3	14:06:59		65	-71.3	-3.2	-0.3	
1+125W	-27.8	1.4	7.10	-15.5	14:08:04		59	-76.7	-2.0	-2.6	
1+25 W	-26.9	-3.9	7.03	-15.1	14:08:42		65	-80.3	0.4	-0.8	
1+375W	-27.4	-4.9	7.07	-15.4	14:09:25		56	-77.9	0.3	0.3	
1+50 W	-26.5	-3.4	7.10	-14.8	14:09:56		54	-80.8	0.4	0.3	
1+625W	-22.7	-4.9	6.99	-12.8	14:11:47		45	-76.6	2.9	1.6	
1+75 W	-22.3	-2.3	7.14	-12.5	14:12:25		44	-79.8	4.9	3.9	
1+875W	-20.5	-4.2	7.32	-11.6	14:13:28		67	-76.6	3.5	4.2	
2+00 W	-17.1	-2.8	7.30	-9.7	14:14:30		67	-72.8	4.0	3.7	
2+125W	-16.1	-1.6	7.34	-9.1	14:17:27		57	-80.4	5.3	4.6	
2+25 W	-15.5	-2.0	7.32	-8.8	14:18:25		66	-77.6	3.4	4.3	
2+375W	-13.8	-3.1	7.61	-7.8	14:19:01		56	-80.1	2.2	2.8	
2+50 W	-12.9	-5.1	7.76	-7.4	14:19:48		67	-76.2	2.7	2.4	

Line 1+00 S Date 12 SEP 90 24.0 #250

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT S	DIR	4-FRA	5-FRA	
2+50 W	-21.2	-2.4	7.76	-12.0	14:24:05		65	-52.0		
2+375W	-21.9	-0.5	7.82	-12.3	14:25:55		66	-58.6		
2+25 W	-20.6	-0.5	7.83	-11.6	14:26:41		76	-66.0		
2+125W	-17.8	-0.1	7.84	-10.1	14:28:30	55	66	-66.8	-2.6	
2+00 W	-18.2	-0.2	7.71	-10.3	14:29:25	65	77	-68.2	-3.5	-3.1
1+875W	-19.9	0.0	7.60	-15.2	14:29:57		67	-68.7	3.8	0.1
1+75 W	-22.0	-3.0	7.56	-12.4	14:30:28		67	-65.7	7.2	5.5
1+625W	-22.3	0.0	7.52	-16.8	14:31:03		65	-68.1	3.7	5.4
1+50 W	-19.7	0.2	7.42	-11.1	14:32:15		67	-61.4	0.3	2.0
1+375W	-21.3	-2.4	7.35	-12.0	14:33:08		67	-60.5	-6.1	-2.9
1+25 W	-22.7	-1.6	7.34	-12.7	14:34:36		67	-62.7	-3.2	-4.7
1+125W	-24.3	3.8	7.19	-13.7	14:35:52		69	-58.0	3.3	0.0
1+00 W	-25.9	0.5	7.14	-14.5	14:36:59		66	-56.8	3.5	3.4
0+875W	-26.1	-3.8	7.14	-14.6	14:38:03		66	-49.3	2.7	3.1
0+75 W	-20.3	-4.2	7.64	-11.5	14:38:39		79	-50.7	-2.1	0.3
0+625W	-11.9	-0.6	7.93	-6.8	14:39:19		69	-52.6	-10.8	-6.5
0+50 W	-8.7	5.5	7.33	-5.0	14:40:20		69	-53.7	-14.3	-12.6
0+375W	-9.9	9.1	6.93	-5.7	14:41:02		68	-58.0	-7.6	-11.0
0+25 W	-11.7	7.4	6.74	-6.7	14:41:50		67	-60.7	0.6	-3.5
0+125W	[illegible]			-8.8	14:42:31		67	-53.5	4.8	2.7
0+00 E	[illegible]			-2.0	14:43:12		69	-55.3	-1.6	1.6
0+125E	[illegible]			-2.8	14:43:55		67	-59.7	-10.7	-6.2
0+25 E	[illegible]			-3.5	14:44:42		79	-60.6	-4.5	-7.6
0+375E	[illegible]			-5.4	14:45:33		67	-62.7	4.1	-0.2
0+50 E	[illegible]			-6.7	14:46:27		74	-60.6	7.8	5.9
0+625E	-18.0	3.8	4.25	-10.2	14:51:03		64	-59.2	10.0	8.9
0+75 E	-17.9	5.4	4.72	-10.2	14:54:14		64	-66.7	6.3	8.1
0+875E	-18.8	6.8	4.96	-10.7	14:55:07		64	-60.8	2.0	4.1
1+00 E	-20.9	5.9	5.96	-11.8	14:55:50		64	-60.2	2.1	2.0
1+125E	-23.3	4.6	5.93	-13.1	14:56:41		75	-58.4	4.0	3.0
1+25 E	-25.4	4.4	6.07	-14.3	14:57:30		64	-55.7	4.9	4.4
1+375E	-24.0	5.2	5.83	-13.5	14:58:30		75	-58.8	2.9	3.9
1+50 E	-24.7	5.8	5.83	-13.9	14:59:29		74	-63.1	0.0	1.4
1+625E	-23.6	6.6	5.98	-13.3	15:03:50		64	-58.6	-0.6	-0.3

Line 1+00 N Date 12 SEP 90 24.0 #284

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT S	DIR	4-FRA	5-FRA
0+50 E	-29.9	2.0	6.74	-16.6	15:32:26		49	-65.8	
0+375E	-28.7	0.3	6.74	-16.0	15:34:39		49	-59.8	
0+25 E	-26.1	-1.2	6.64	-14.6	15:35:26		49	-66.4	



OMNI-PLUS Tie-line MAG/VLF V12N Ser #418144
VLF TOTAL FIELD DATA (uncorrected)
Date 11 SEP 90
Operator: 3000
Records: 287
Bat: 18.4 Volt Lithium: 3.48 Volt
Last time update: 9/12 8:54:00
Start of print: 9/12 20:00:19

Line 0+00 N Date 11 SEP 90 24.8 #1

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT S	DIR	4-FRA	5-FRA
#1	70.3	0.2	3709.	9.0	13:18:27	99	0.0	!	

OMNI-PLUS Tie-line MAG/VLF V12N Ser #418144
VLF TOTAL FIELD DATA (uncorrected)
Date 12 SEP 90
Operator: 3000
Records: 287
Bat: 18.4 Volt Lithium: 3.48 Volt
Last time update: 9/12 8:54:00
Start of print: 9/12 20:00:19

Line 0+00 N Date 12 SEP 90 24.8 #2

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT S	DIR	4-FRA	5-FRA
#2	70.2	0.1	3772.	10.0	9:25:23	65 99	0.0	!	

Line 1+50 N Date 12 SEP 90 24.8 #3

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT S	DIR	4-FRA	5-FRA
0+50 W	[redacted]			1.5	9:28:42	76	22.9		
0+375W				0.9	9:29:47	68	10.5		
0+25 W				0.8	9:31:13	49	12.2		
0+125W				2.2	9:31:49	79	5.1	0.6	
0+00 E				3.4	9:32:30	79	12.1	8.9	4.7
0+125E	-10.9		10.15	-6.2	9:33:05	69	9.9	11.6	10.2
0+25 E	-11.2	5.8	10.39	-6.4	9:33:43	67	10.3	2.0	6.8
0+375E	-11.6	7.1	10.75	-6.6	9:34:22	68	6.3	-1.6	0.2
0+50 E	-17.3	5.3	10.93	-9.8	9:35:03	56	2.2	3.8	1.1

Line 1+75 N Date 12 SEP 90 24.8 #12

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT S	DIR	4-FRA	5-FRA
0+50 E	-13.8	5.9	11.42	-7.9	9:36:07	69	-0.3		
0+375E	-9.5	6.2	11.17	-5.4	9:37:00	39	8.0		
0+25 E	-4.4	5.7	10.98	-2.5	9:37:55	39	2.9		
0+125E	3.6	4.4	10.43	2.0	9:41:06	15	15.5	12.8	
0+00 E	-3.4	1.2	10.47	-1.9	9:41:59	55 49	13.8	8.0	10.4
0+125W	-6.1	-0.3	10.43	-3.4	9:42:43	65 49	10.1	-4.8	1.6
0+25 W	-0.7	2.7	10.38	-0.4	9:43:35	49	17.4	-3.9	-4.4
0+375W	-0.4	0.3	10.27	-0.2	9:44:07	59	11.9	4.7	0.4

0+50 W	-0.9	0.3	9.97	-0.5	9:44:47		68	15.8	3.1	3.9

Line 2+00 N Date 12 SEP 90 24.8 #21

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 W	2.2	1.8	10.47	1.3	9:46:06		58	20.8		
0+375W	0.3	3.2	10.42	0.1	9:47:05	65	68	21.4		
0+25 W	-1.2	[illegible]	10.34	-0.6	9:47:46		28	15.9		
0+125W	-0.[illegible]	[illegible]	10.11	0.0	9:48:22		77	18.9	2.0	
0+00 E	1.8	[illegible]	10.79	1.0	9:49:01		57	21.1	-1.5	0.2
0+125E	4.0	[illegible]	10.86	2.3	9:49:44		58	14.9	-3.7	-2.7
0+25 E	-6.0	[illegible]	11.53	-3.5	9:50:36		46	20.0	2.2	-0.9
0+375E	-10.6	6.1	11.84	-6.1	9:51:18	55	57	16.1	12.9	7.5
0+50 E	-17.9	7.1	12.04	-10.2	9:51:55		47	12.6	15.1	14.0

Line 2+25 N Date 12 SEP 90 24.8 #30

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 E	-2.1	6.8	12.64	-1.2	9:55:08		29	3.7		
0+375E	2.7	8.6	12.14	1.5	9:55:52		29	5.0		
0+25 E	9.2	6.9	11.32	5.2	9:57:31	65	17	6.3		
0+125E	5.8	7.2	10.77	3.3	9:58:13		59	9.7	8.2	
0+00 E	7.0	6.6	10.07	4.0	9:59:01		47	3.7	0.6	4.4
0+125W	5.7	3.6	9.62	3.2	10:00:32		45	19.9	-1.3	-0.4
0+25 W	-4.0	-3.3	10.16	-2.3	10:01:16		28	13.1	-6.4	-3.9
0+375W	7.0	-0.9	10.55	4.0	10:01:58		37	11.8	-5.3	-6.0
0+50 W	7.4	0.9	10.98	4.2	10:02:33	55	47	15.2	7.3	0.9

Line 2+50 N Date 12 SEP 90 24.8 #39

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 W	12.1	3.0	11.61	6.9	10:04:38		68	16.1		
0+375W	2.1	1.0	10.67	1.2	10:05:57	55	69	16.1		
0+25 W	0.3	-1.7	10.31	0.2	10:06:33	65	69	10.3		
0+125W	-0.4	5.0	9.49	-0.2	10:07:21		59	13.5	8.1	
0+00 E	6.4	8.8	9.84	3.7	10:09:17		37	21.6	-2.1	3.0
0+125E	8.2	10.5	10.17	4.7	10:10:02		58	12.7	-8.4	-5.3
0+25 E	5.1	10.7	11.08	3.0	10:10:53	55	26	26.7	-4.2	-6.3
0+375E	0.2	10.1	11.65	0.1	10:11:55		18	19.3	5.3	0.5
0+50 E	-5.5	7.8	11.90	-3.2	10:12:48		39	10.2	10.8	8.0

Line 2+75 N Date 12 SEP 90 24.8 #48

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 E	1.8	4.4	11.88	1.0	10:14:58		29	-8.9		
0+375E	13.5	10.0	11.62	7.8	10:16:53		5	9.2		
0+25 E	13.7	13.2	10.77	7.9	10:17:52		35	13.7		
0+125E	10.9	8.9	10.18	6.2	10:18:49		16	8.5	5.3	
0+00 E	2.7	[illegible]		1.5	10:19:48		47	14.0	-8.0	-1.4
0+125W	[illegible]			0.8	10:23:26		68	12.2	-13.4	-10.7
0+25 W	[illegible]			1.4	10:24:47		49	11.4	-9.9	-11.7
0+375W	[illegible]			3.2	10:25:31		37	15.7	1.1	-4.4
0+50 W	[illegible]			0.8	10:26:12		24	13.9	16.2	8.6

Line 3+00 [illegible] 24.8 #57

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+75 W	21.5	1.8	9.87	12.1	10:28:02		57	19.9		
0+625W	21.2	-0.2	9.53	12.0	10:28:55		49	32.2		
0+50 W	20.5	1.7	10.15	11.6	10:29:33		29	26.1		
0+375W	19.2	5.7	10.95	10.9	10:30:11		38	18.0	1.6	
0+25 W	0.7	-4.0	11.96	0.4	10:30:51		49	23.5	12.3	6.9
0+125W	-3.5	0.2	10.87	-2.0	10:31:33		39	17.5	24.1	18.2
0+00 E	-1.7	2.8	10.39	-0.9	10:32:08		49	22.4	14.2	19.1
0+125E	4.5	8.4	10.71	2.6	10:33:02		49	24.7	-3.3	5.4
0+25 E	6.7	12.5	11.37	3.9	10:33:50		28	16.5	-9.4	-6.4
0+375E	6.8	15.2	11.84	4.0	10:35:25		49	13.0	-6.2	-7.8
0+50 E	1.4	8.0	12.75	0.8	10:36:29		58	15.9	1.7	-2.3

Line 3+25 N Date 12 SEP 90 24.8 #68

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA

0+50 E	-0.8	0.4	12.37	-0.3	10:37:28		17	8.7			
0+375E	8.7	4.6	12.82	5.0	10:38:10	55	46	12.7			
0+25 E	13.8	6.0	11.69	7.9	10:38:41	65	46	15.1			
0+125E	13.2	4.4	10.81	7.5	10:39:35		35	17.0	10.9		
0+00 E	9.9	-0.3	10.69	5.6	10:40:13		26	11.0	0.2	5.8	
0+125W	5.8	-7.0	11.38	3.3	10:40:50		36	14.2	-6.5	-3.2	
0+25 W	24.4	-2.8	11.49	14.8	10:42:19	65	13	1.9	5.0	-0.8	
0+375W	27.6	-1.8	10.64	15.4	10:43:13		23	21.1	21.3	13.1	
0+50 W	30.9	-1.6	10.10	17.1	10:43:47		34	12.9	14.4	17.8	
0+625W	38.4	0.6	9.44	21.1	10:44:29		33	5.0	8.0	11.2	
0+75 W	36.7	1.5	8.77	20.4	10:45:27		65	-0.9	9.0	8.5	

Line 3+50 N Date 12 SEP 90 24.8 #79

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA	
0+75 W	27.6	4.9	8.28	15.4	10:47:13		39	19.4			
0+625W	33.8	6.3	8.59	18.7	10:47:57		66	19.3			
0+50 W	35.8	10.5	8.93	19.9	10:48:32		69	17.9			
0+375W	35.9	12.2	10.15	20.0	10:49:12		39	21.0	-5.8		
0+25 W	27.4	6.3	11.47	15.4	10:49:48		39	20.7	3.2	-1.3	
0+125W	18.0	1.8	11.93	10.2	10:50:30		69	17.0	14.3	8.7	
0+00 E	10.2	0.6	11.49	5.8	10:51:11		49	18.3	19.4	16.8	
0+125E	8.4	1.7	11.51	4.8	10:52:04		49	22.0	15.0	17.2	
0+25 E	7.3	1.9	11.32	4.2	10:52:44		49	17.6	7.0	11.0	
0+375E	7.2	4.1	11.90	4.1	10:53:18		49	17.6	2.3	4.6	
0+50 E	1.8	1.5	12.86	1.0	10:53:52		59	13.4	3.9	3.1	

Line 3+75 N Date 12 SEP 90 24.8 #90

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 E	4.6	-1.8	10.98	2.6	10:54:50		47	9.5		
0+375E	2.5	-2.6	11.13	1.4	10:55:32	55	39	6.8		
0+25 E	6.8	-4.9	11.51	3.9	10:56:04	65	47	9.5		
0+125E	16.0	-2.7	12.21	9.1	10:57:15		5	1.7	9.0	
0+00 E	26.8	2.2	12.12	15.0	10:58:03		13	3.8	18.8	13.9
0+125W	32.1	5.2	11.78	17.8	10:58:47		34	9.8	19.8	19.3
0+25 W	45.6	12.7	10.78	24.8	10:59:24		43	5.8	18.5	19.1
0+375W	47.0	16.7	9.12	25.6	10:59:59		43	7.7	17.6	18.0
0+50 W	39.6	9.4	8.61	21.7	11:00:47		63	10.8	4.7	11.1
0+625W	36.8	5.7	8.30	20.2	11:01:24		43	5.3	-8.5	-1.9
0+75 W	30.5	7.2	8.10	17.0	11:01:58		66	9.5	-10.1	-9.3

Line 4+00 N Date 12 SEP 90 24.8 #101

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+75 W	31.3	5.5	7.88	17.4	11:03:44		53	14.8		
0+625W	32.9	9.3	8.10	18.3	11:04:38		64	13.5		
0+50 W	31.8	[illegible]	[illegible]	17.7	11:05:14		59	17.9		
0+375W	[illegible]	[illegible]	[illegible]	16.0	11:05:47		52	22.5	-8.0	
0+25 W	[illegible]	[illegible]	[illegible]	16.1	11:06:21		55	18.8	-16.1	-12.1
0+125W	[illegible]	[illegible]	[illegible]	18.8	11:07:10		69	16.7	-1.2	-8.7
0+00 E	[illegible]	[illegible]	[illegible]	12.9	11:08:05		59	18.4	20.4	9.6
0+125E	[illegible]	[illegible]	[illegible]	1.4	11:31:00		25	12.5	20.6	20.5
0+25 E	[illegible]	[illegible]	[illegible]	1.4	11:31:47		69	11.4	18.9	19.7
0+375E	-2.3	[illegible]	[illegible]	-1.3	11:32:19		69	14.2	24.2	21.5
0+50 E	-2.8	-3.9	10.[illegible]	-1.6	11:32:52		68	14.3	15.7	19.9
0+625E	-3.4	-2.8	10.46	-1.9	11:33:40		58	15.9	3.6	9.6
0+75 E	-2.1	-1.4	10.22	-1.2	11:34:53	55	66	22.0	0.2	1.9
0+875E	-0.6	0.3	10.29	-0.3	11:35:58	65	57	22.1	-2.0	-0.9
1+00 E	0.2	-0.1	10.29	0.1	11:37:19		37	21.8	-2.9	-2.5
1+125E	2.1	-1.6	10.13	1.2	11:38:22	65	37	23.6	-2.8	-2.9
1+25 E	2.4	-3.1	10.16	1.4	11:39:02		27	21.2	-2.8	-2.8
1+375E	5.1	-4.5	10.11	2.9	11:39:49		49	16.0	-3.0	-2.9
1+50 E	8.4	-3.6	10.17	4.8	11:40:45		29	13.7	-5.1	-4.1
1+625E	11.3	-3.7	10.50	6.4	11:41:28		59	15.2	-6.9	-6.0
1+75 E	13.8	-3.6	10.99	7.9	11:42:16		49	13.7	-6.6	-6.8

Line 5+00 N Date 12 SEP 90 24.8 #122

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+625E	3.3	-8.3	8.38	1.9	11:50:28	65	46	11.7		
0+50 E	0.0	-8.1	8.87	0.0	11:51:10		57	14.1		
0+375E	-0.7	-6.0	9.80	-0.4	11:51:57		67	15.5	-8.9	
0+25 E	5.5	-2.6	10.93	3.1	11:52:28		59	5.8	0.8	-4.1
0+125E	15.7	2.5	11.61	8.9	11:53:39		57	4.7	12.4	6.6
0+00 E	31.9	[illegible]	11.39	17.8	11:54:10		34	7.8	24.0	18.2
0+125W	40.7	[illegible]	10.50	22.4	11:54:44	55	54	10.4	28.2	26.1
0+25 W	49.3	[illegible]	9.12	27.2	11:55:16	65	54	6.9	22.9	25.5
0+375W	44.0	[illegible]	8.36	24.4	11:55:51		53	9.3	11.4	17.1

Line 6+00 N Date 12 SEP 90 24.8 #132

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+25 W	38.6	14.4	7.88	21.5	12:01:34		63	23.3		
0+125W	36.9	14.0	8.42	20.6	12:02:45		75	17.7		
0+00 E	31.5	10.6	8.69	17.6	12:03:33		66	19.5		
0+125E	21.9	7.6	9.01	12.4	12:04:22		65	14.6	12.1	
0+25 E	16.3	5.5	8.33	9.3	12:05:32		65	19.3	16.5	14.3
0+375E	11.3	3.7	8.09	6.4	12:06:38		55	20.9	14.3	13.4
0+50 E	9.2	3.5	7.59	5.2	12:07:14		55	19.1	10.1	12.2
0+625E	10.0	2.4	7.02	5.7	12:08:18		65	17.3	4.8	7.4
0+75 E	14.8	6.8	6.88	8.4	12:09:54		64	4.7	-2.5	1.1

Line 3+00 N Date 12 SEP 90 24.8 #141

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+75 E	-12.2	1.4	10.52	-7.0	12:19:21		68	11.1		
0+875E	-13.4	0.0	10.09	-10.5	12:19:56		77	17.1		
1+00 E	-16.2	-3.9	9.94	-9.2	12:20:50		45	14.3		
1+125E	-17.6	-3.6	9.63	-9.9	12:21:42		77	9.5	1.6	
1+25 E	-16.7	-4.4	9.52	-9.5	12:22:41	55	65	15.6	-0.3	[illegible]
1+375E	-15.7	-8.2	9.28	-8.9	12:23:26	65	65	13.1	-0.7	[illegible]
1+50 E	-12.5	-8.0	9.15	-7.2	12:24:01		66	17.8	-3.3	[illegible]
1+625E	-8.3	-8.5	9.42	-4.8	12:25:01		66	20.2	-6.4	-4.9
1+75 E	-4.9	-9.0	9.46	-2.8	12:26:00		57	18.0	-8.5	-7.5
1+875E	1.1	-6.6	9.77	0.6	12:26:53		77	16.7	-9.8	-9.2
2+00 E	4.7	-3.9	10.44	2.7	12:27:38	55	67	22.7	-10.9	-10.4

Line 2+00 N Date 12 SEP 90 24.8 #152

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
2+00 E	-12.4	-7.5	8.48	-7.1	12:30:50	65	65	3.5		
1+875E	-18.7	-8.9	8.57	-10.6	12:32:04		67	4.7		
1+75 E	-22.9	-8.3	8.93	-13.0	12:33:15		54	2.4		
1+625E	-24.5	-7.3	9.10	-13.8	12:34:05		59	1.8	-9.1	
1+50 E	-26.8	-8.0	9.34	-15.0	12:35:08		49	-0.3	-5.2	-7.2
1+375E	-29.0	-8.5	[illegible]	-16.3	12:36:09		59	0.1	-4.5	-4.9
1+25 E	[illegible]	[illegible]	[illegible]	[illegible]	12:37:07		67	0.2	-4.8	-4.7
1+125E	[illegible]	[illegible]	[illegible]	[illegible]	12:38:25		55	-4.4	-2.4	-3.6
1+00 E	[illegible]	[illegible]	[illegible]	[illegible]	12:39:33		59	1.7	2.8	0.2
0+875E	[illegible]	[illegible]	[illegible]	[illegible]	12:40:43	55	59	-9.3	7.1	4.9
0+75 E	[illegible]	[illegible]	[illegible]	[illegible]	12:42:01	65	49	-11.6	6.6	6.8
0+625E	[illegible]	[illegible]	[illegible]	[illegible]	12:42:49	55	18	-3.9	2.6	4.6

Line 1+25 N Date 12 SEP 90 24.8 #164

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 E	-19.4	0.6	11.16	-11.0	12:45:11	65	46	-5.7		
0+375E	-16.3	1.6	11.34	-9.2	12:46:15		59	-3.9		
0+25 E	-10.7	8.5	11.07	-6.1	12:47:07		77	3.8		
0+125E	-15.8	2.2	10.48	-9.0	12:56:35		77	3.8	5.1	
0+00 E	-20.6	-5.1	10.98	-11.7	12:57:10		77	7.1	-5.4	-0.2
0+125W	-20.4	-6.0	11.81	-11.5	12:57:46		69	5.0	-8.1	-6.8
0+25 W	8.0	10.1	12.79	4.6	12:58:31		69	8.3	13.8	2.8
0+375W	3.3	3.8	10.72	1.9	12:59:28		69	2.4	29.7	21.7
0+50 W	1.3	-0.3	10.27	0.7	13:00:03		69	1.6	9.5	19.6

Line 1+00 N Date 12 SEP 90 24.8 #173

POSITION I/P QUAD T.FLD TILT TIME CULT S DIR 4-FRA 5-FRA

0+00 E	-24.3	-2.8	10.56	-13.7	13:04:28		55	4.6		
0+125W	-28.8	-5.0	11.66	-16.1	13:05:25		64	-2.4		
0+25 W	-10.2	-2.2	14.27	-5.8	13:05:58		79	-2.0		
0+375W	13.3	9.7	11.38	7.6	13:07:11		69	4.4	31.6	
0+50 W	3.5	-0.9	10.46	2.0	13:09:28		59	4.6	31.5	31.5
0+625W	-0.8	-2.9	10.20	-0.4	13:10:38		79	1.8	-0.2	15.6
0+75 W	[illegible]		10.43	-3.6	13:11:23		67	-1.1	-13.6	-6.9
0+875W	[illegible]		10.65	-2.0	13:12:18		67	3.9	-7.2	-10.4
1+00 W	-1.2		10.38	-0.6	13:12:55	55	69	6.5	1.4	-2.9
1+125W	5.9		10.25	3.3	13:13:29	65	69	8.1	8.3	4.8
1+25 W	7.3		9.57	4.1	13:14:13		69	5.5	10.0	9.1
1+375W	4.8	2.4	9.24	2.7	13:15:20	55	69	8.5	4.1	7.0
1+50 W	2.7	0.0	9.19	1.5	13:16:28	65	69	2.8	-3.2	0.4

Line 0+75 N Date 12 SEP 90 24.8 #196

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 W	-18.3	-7.7	12.43	-10.4	13:20:58	55	79	18.2		
0+375W	-11.2	0.0	10.96	-8.9	13:21:50	65	79	20.1		
0+25 W	-28.0	8.1	12.07	-15.7	13:22:37		79	9.8		
0+125W	-21.2	6.1	10.95	-12.0	13:23:27	55	46	2.4	8.4	
0+00 E	-20.1	6.0	10.56	-11.4	13:24:04	65	66	8.8	-1.2	3.6
0+125E	-22.6	1.9	10.06	-12.7	13:24:38		79	8.5	-3.6	-2.4
0+25 E	-15.3	6.5	9.93	-8.7	13:25:19	55	69	0.4	-2.0	-2.8
0+375E	-11.6	11.6	10.41	-6.7	13:26:50	65	69	-2.0	-8.7	-5.4
0+50 E	-16.1	2.7	10.62	-9.1	13:27:52		69	-4.4	-5.6	-7.2
0+625E	-17.2	3.3	10.31	-9.7	13:28:26		39	5.3	3.4	-1.1
0+75 E	-15.2	6.8	10.20	-8.7	13:29:05		67	6.5	2.6	3.0

Line 0+50 N Date 12 SEP 90 24.8 #197

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+75 E	-12.4	5.0	10.18	-7.1	13:30:23		66	-10.3		
0+625E	-11.7	3.8	10.18	-6.7	13:31:09		79	-6.0		
0+50 E	-10.7	4.7	10.36	-6.1	13:32:04		69	-2.6		
0+375E	-10.1	7.5	10.03	-5.8	13:32:56		68	-2.9	1.9	
0+25 E	-13.9	5.4	9.78	-7.9	13:33:35		77	-6.1	-0.9	0.5
0+125E	-20.3	0.5	9.88	-11.5	13:34:15		54	0.0	-7.5	-4.2
0+00 E	-17.3	3.9	10.53	-9.8	13:35:06	55	76	-3.8	-7.6	-7.6
0+125W	-14.3	8.3	10.54	-8.2	13:35:51	65	66	1.3	1.4	-3.1
0+25 W	-17.0	10.7	9.98	-9.7	13:37:05		65	-1.0	3.4	2.4
0+375W	-24.4	3.9	9.86	-13.7	13:37:57		55	1.9	-5.4	-1.0
0+50 W	-32.8	-0.6	10.29	-18.1	13:38:43		63	9.1	-13.9	-9.7

Line 0+25 N Date 12 SEP 90 24.8 #208

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 W	-31.9	[illegible]		12.7	13:40:15		79	1.4		
0+375W	[illegible]			3.3	13:41:06	55	69	6.5		
0+25 W	[illegible]			7.2	13:41:55	65	79	9.6		
0+125W	[illegible]			4.8	13:45:40	55	69	10.7	-17.0	
0+00 E	[illegible]			9.4	13:46:17	65	59	2.9	-4.3	-10.7
0+125E	[illegible]			0.7	13:46:53		66	8.0	6.1	0.9
0+25 E	[illegible]			9.6	13:47:45	55	66	1.3	4.1	5.1
0+375E	-11.2	8.2	9.32	-6.4	13:48:46	65	69	2.2	-4.1	0.0
0+50 E	-11.6	7.1	9.82	-6.6	13:49:18		79	0.8	-7.3	-5.7
0+625E	-14.5	4.4	9.82	-8.2	13:49:53		67	6.8	-1.2	-4.3
0+75 E	-13.3	2.8	9.88	-7.8	13:50:33		79	3.0	2.8	0.8
0+875E	-13.8	3.8	9.67	-7.8	13:51:06		79	3.4	0.6	1.7
1+00 E	-11.6	3.3	9.65	-6.6	13:51:47		59	0.8	-1.4	-0.4

Line 0+00 N Date 12 SEP 90 24.8 #221

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
1+00 E	-12.2	2.8	9.31	-6.9	13:53:56		66	-13.0		
0+875E	-14.9	0.7	9.32	-8.4	13:55:14		55	-5.7		
0+75 E	-15.1	-1.5	9.58	-8.5	13:56:04		76	-6.3		
0+625E	-15.2	-1.6	9.71	-8.6	13:56:55		66	-3.5	-1.8	
0+50 E	-15.6	0.1	9.78	-8.8	13:57:35		66	-2.9	-0.5	-1.2
0+375E	-13.2	6.9	9.42	-7.5	13:58:34		66	-1.8	0.8	0.1

0+25 E	-17.0	1.9	9.05	-9.6	13:59:12		78	-3.3	0.3	0.3
0+125E	-24.2	-3.7	9.46	-13.6	13:59:44	55	67	-2.8	-6.9	-3.3
0+00 E	-20.8	0.0	10.71	-15.8	14:00:19	65	65	-1.1	-12.3	-9.6
0+125W	-9.4	7.6	10.23	-5.4	14:00:50		78	1.6	2.0	-5.2
0+25 W	-8.3	10.0	9.24	-4.7	14:01:37		77	-1.4	19.3	10.6
0+375W	-14.7	7.3	8.89	-8.4	14:03:15		57	-2.7	8.1	13.7
0+50 W	-23.4	2.7	8.93	-13.2	14:03:50		76	-2.9	-11.5	-1.7
0+625W	-34.2	2.5	9.79	-18.9	14:04:24		76	-2.0	-19.0	-15.3
0+75 W	-17.2	2.9	13.80	-9.7	14:04:58		66	-2.3	-7.0	-13.0
0+875W	-6.5	5.1	10.90	-3.7	14:06:14		48	5.9	18.7	5.8
1+00 W	-7.4	8.2	10.13	-4.2	14:06:59		67	2.6	20.7	19.7
1+125W	-14.2	-11.1	11.16	-8.2	14:08:04		66	-6.6	1.0	10.8
1+25 W	-0.9	2.0	9.58	-0.5	14:08:42		69	-2.6	-0.8	0.1
1+375W	-6.2	-1.3	8.93	-3.5	14:09:25		78	1.3	8.4	3.8
1+50 W	-12.0	-4.5	8.85	-6.8	14:09:58		69	-0.7	-1.6	3.4
1+625W	-17.8	-3.4	8.61	-10.1	14:11:47		55	4.4	-12.9	-7.3
1+75 W	-20.0	-6.8	8.81	-11.4	14:12:25		59	0.0	-11.2	-12.1
1+875W	-19.3	-2.4	9.14	-10.9	14:13:28		76	6.7	-5.4	-8.3
2+00 W	-19.4	-2.0	8.74	-11.0	14:14:30		65	11.5	-0.4	-2.9
2+125W	-23.9	-5.9	8.86	-13.5	14:17:27		65	3.7	-2.2	-1.3
2+25 W	-25.9	-9.8	9.35	-14.6	14:18:25		66	3.0	-6.2	-4.2
2+375W	-22.3	-6.4	10.07	-12.6	14:19:01		66	1.1	-2.7	-4.5
2+50 W	-17.5	-3.9	9.97	-9.9	14:19:48		76	6.9	5.6	1.4

Line 1+00 S Date 12 SEP 90 24.8 #280

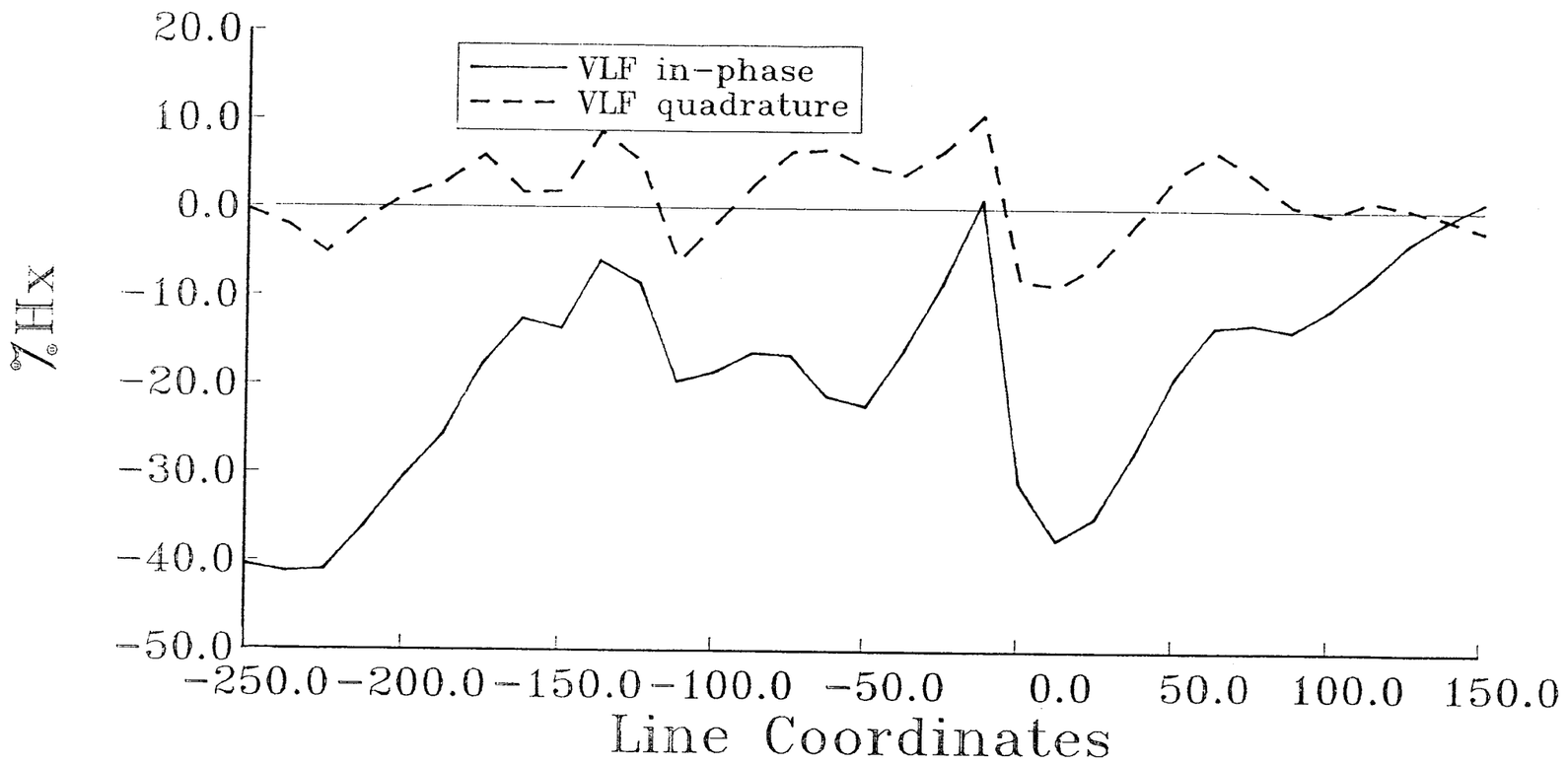
POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
2+50 W	-40.5	-0.3	9.86	-22.0	14:24:05		69	5.7		
2+375W	-41.3	-2.1	9.37	-22.4	14:25:55		69	-1.7		
2+25 W	-41.0	-5.1	8.63	-22.3	14:26:41		77	-5.1		
2+125W	-36.2	-1.3	8.03	-19.9	14:28:30	55	76	-5.4	-2.2	
2+00 W	-30.5	1.2	8.18	-16.9	14:29:25	65	74	-4.4	-7.9	-5.2
1+875W	-25.7	2.8	7.62	-14.4	14:29:57		69	-3.9	-10.9	-9.4
1+75 W	-17.7	5.9	7.74	-10.0	14:30:28		69	0.1	-12.4	-11.7
1+625W	-12.6	1.7	8.23	-7.1	14:31:03		69	-2.8	-14.2	-13.3
1+50 W	-13.6	1.8	8.29	-7.7	14:32:15		78	4.6	-9.6	-11.9
1+375W	-6.0	3.6	8.90	-3.4	14:33:08		79	4.6	-6.0	-7.8
1+25 W	-8.5	5.3	9.97	-4.9	14:34:36		78	2.0	-6.5	-6.3
1+125W	-19.6	-6.1	10.00	-11.1	14:35:52		79	3.5	4.9	-0.8
1+00 W	-18.5	-1.8	9.72	-10.5	14:36:59		68	3.7	13.3	9.1
0+875W	-16.4	2.7	9.78	-9.3	14:38:03		68	5.6	3.8	8.5
0+75 W	-16.6	6.4	10.20	-9.5	14:38:39		79	-2.2	-2.8	0.5
0+625W	-21.2	6.7	10.06	-12.0	14:39:19		79	-8.3	1.7	-0.6
0+50 W	-22.3	4.8	8.75	-12.6	14:40:20		68	-3.1	5.8	3.7
0+375W	-16.0	3.9	8.27	-9.1	14:41:02		79	-2.5	0.2	3.0
0+25 W	-8.4	4.5	8.39	-4.8	14:41:50		77	-0.8	-10.7	-5.3
0+125W	[redacted]			0.6	14:42:31		69	3.7	-17.5	-14.1
0+00 E	[redacted]			7.3	14:43:12		79	-1.9	2.8	-7.4
0+125E	[redacted]			0.6	14:43:55		78	-7.4	33.7	18.2
0+25 E	[redacted]			9.3	14:44:42		74	-5.5	23.2	28.4
0+375E	[redacted]			5.4	14:45:33		75	-5.7	-3.2	10.0
0+50 E	[redacted]			0.7	14:46:27		79	-5.8	-13.8	-8.5
0+625E	-13.2	[redacted]	8.33	-7.5	14:51:03		65	-3.6	-16.5	-15.2
0+75 E	-12.8	3.9	8.57	-7.3	14:54:14		77	-13.0	-11.3	-13.9
0+875E	-13.6	0.6	8.42	-7.7	14:55:07		79	-10.0	-3.2	-7.3
1+00 E	-11.1	-0.5	8.32	-6.3	14:55:50		78	-9.3	-0.8	-2.0
1+125E	-7.8	1.2	8.22	-4.4	14:56:41		76	-7.2	-4.3	-2.6
1+25 E	-3.8	0.3	8.37	-2.2	14:57:30		69	-6.6	-7.4	-5.9
1+375E	-1.1	-0.7	8.81	-0.6	14:58:30		77	-10.2	-7.9	-7.7
1+50 E	1.1	-2.2	8.95	0.6	14:59:29		68	-13.1	-6.6	-7.3
1+625E	2.3	-4.2	9.46	1.3	15:03:50		68	-9.4	-4.7	-5.7

Line 1+00 N Date 12 SEP 90 24.8 #284

POSITION	I/P	QUAD	T.FLD	TILT	TIME	CULT	S	DIR	4-FRA	5-FRA
0+50 E	-19.8	1.8	10.55	-11.2	15:32:26		54	-4.2		
0+375E	-16.3	2.1	10.69	-9.2	15:34:39		55	-0.6		
0+25 E	-48.4	4.9	10.33	-25.8	15:35:26		2	1.2		

Line: -100.0

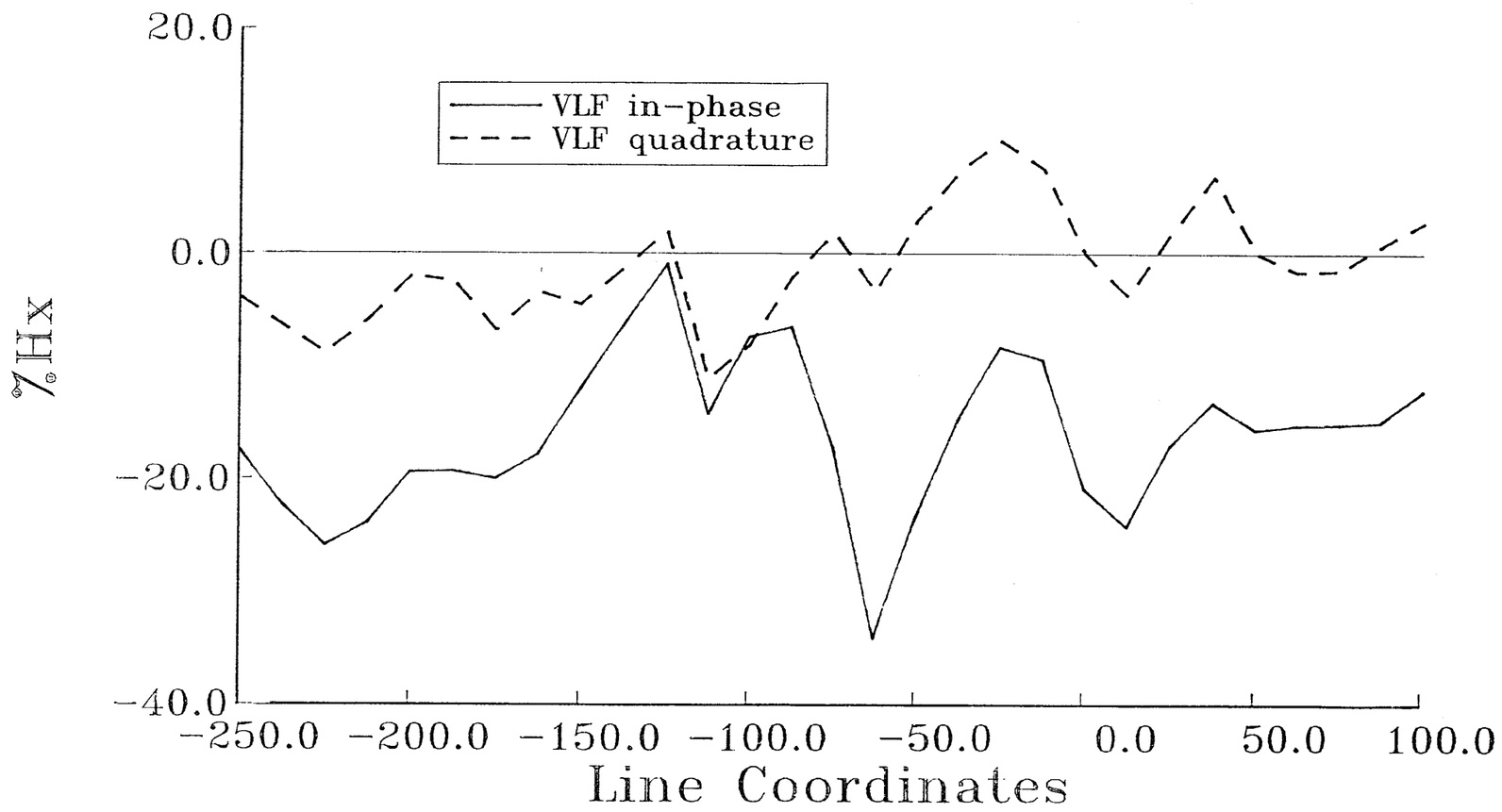
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 100S VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:2000(A)
AMEROK GEOPHYSICS	

Line: .0

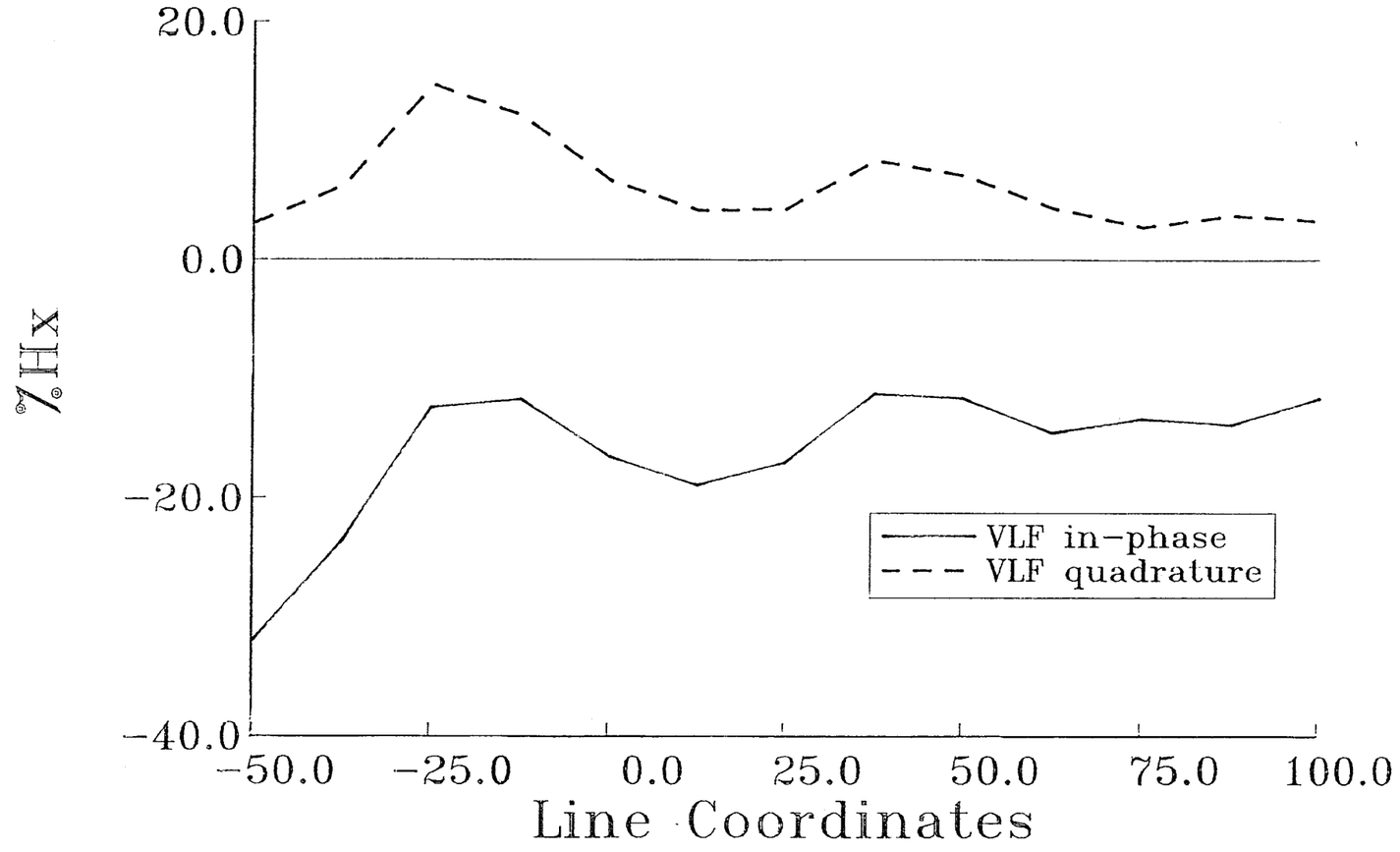
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line ON VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:2000(A)
AMEROK GEOPHYSICS	

Line: 25.0

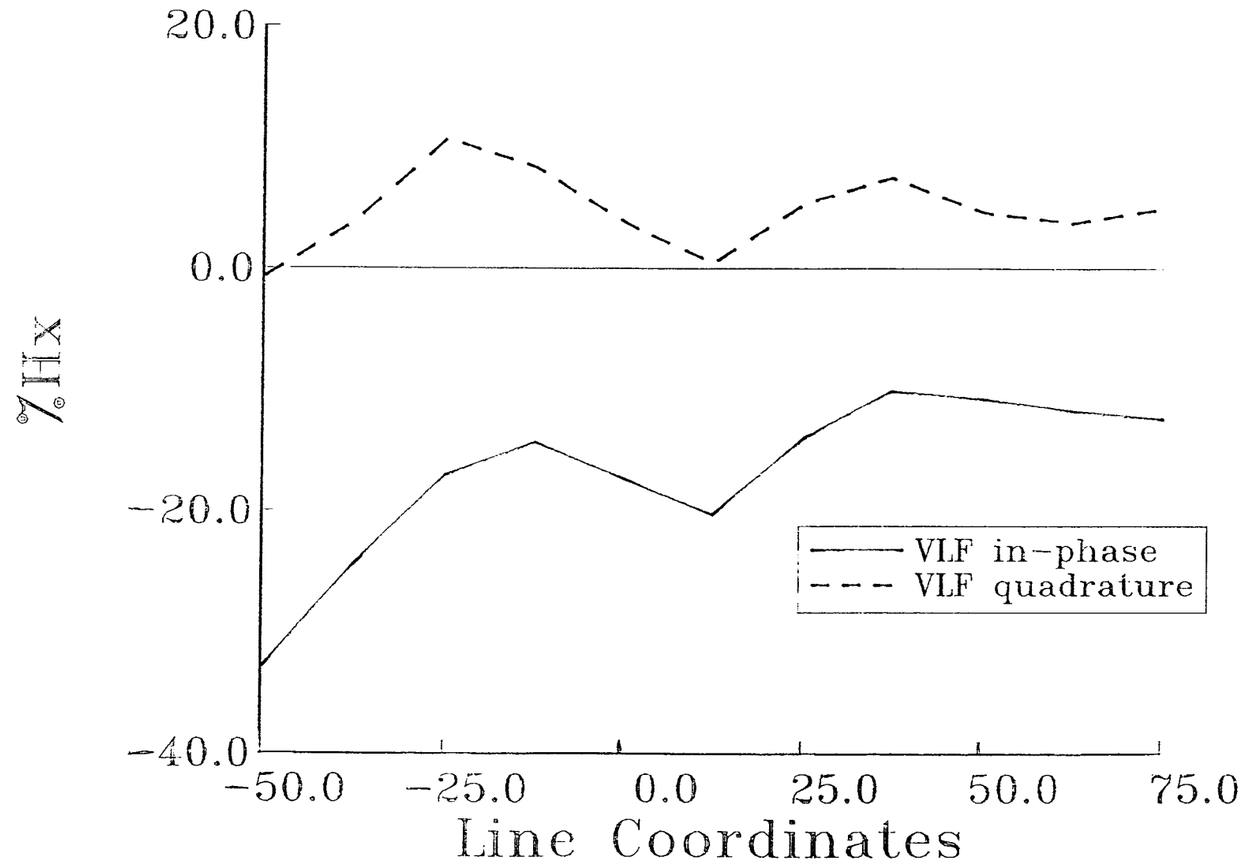
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 25N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 50.0

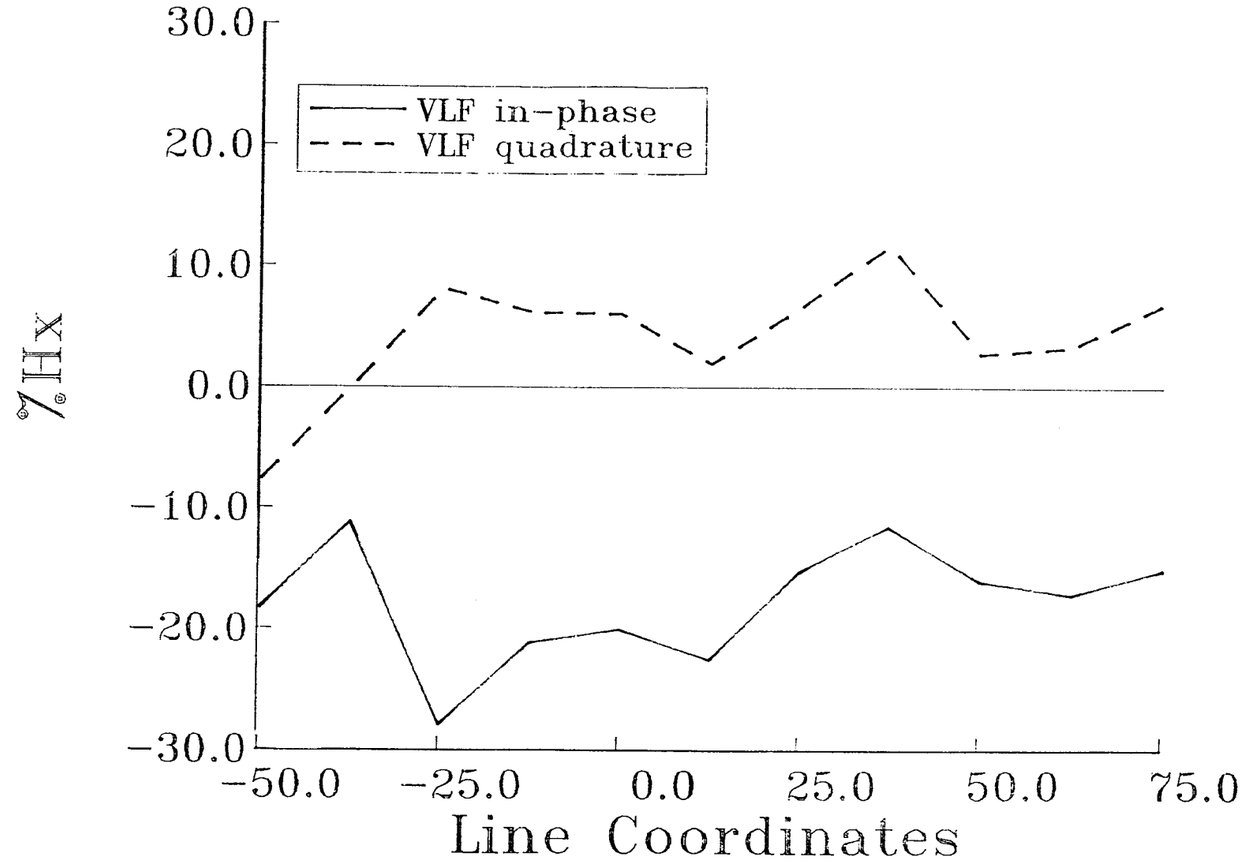
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 50N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 75.0

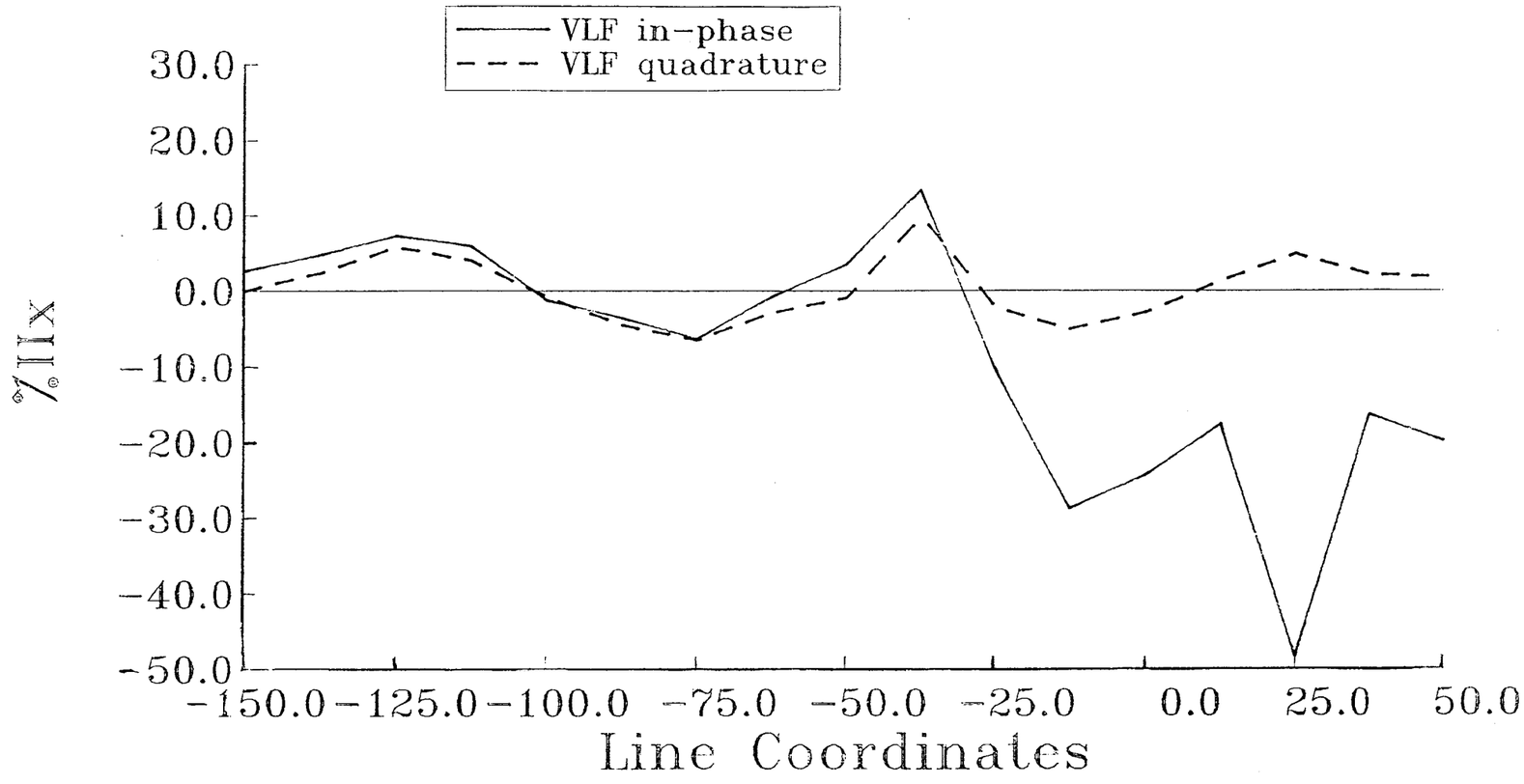
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 75N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 100.0

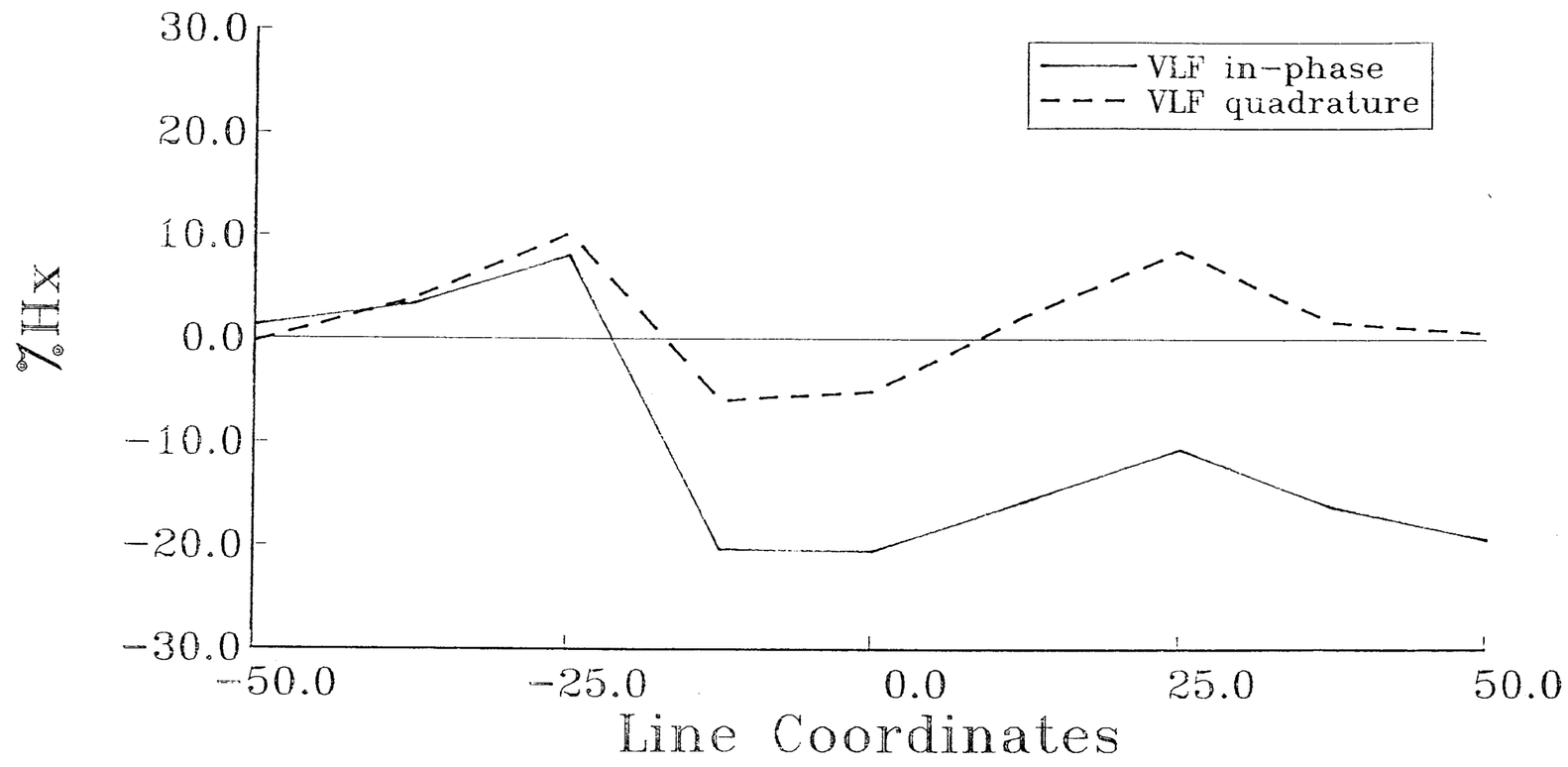
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 100N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 125.0

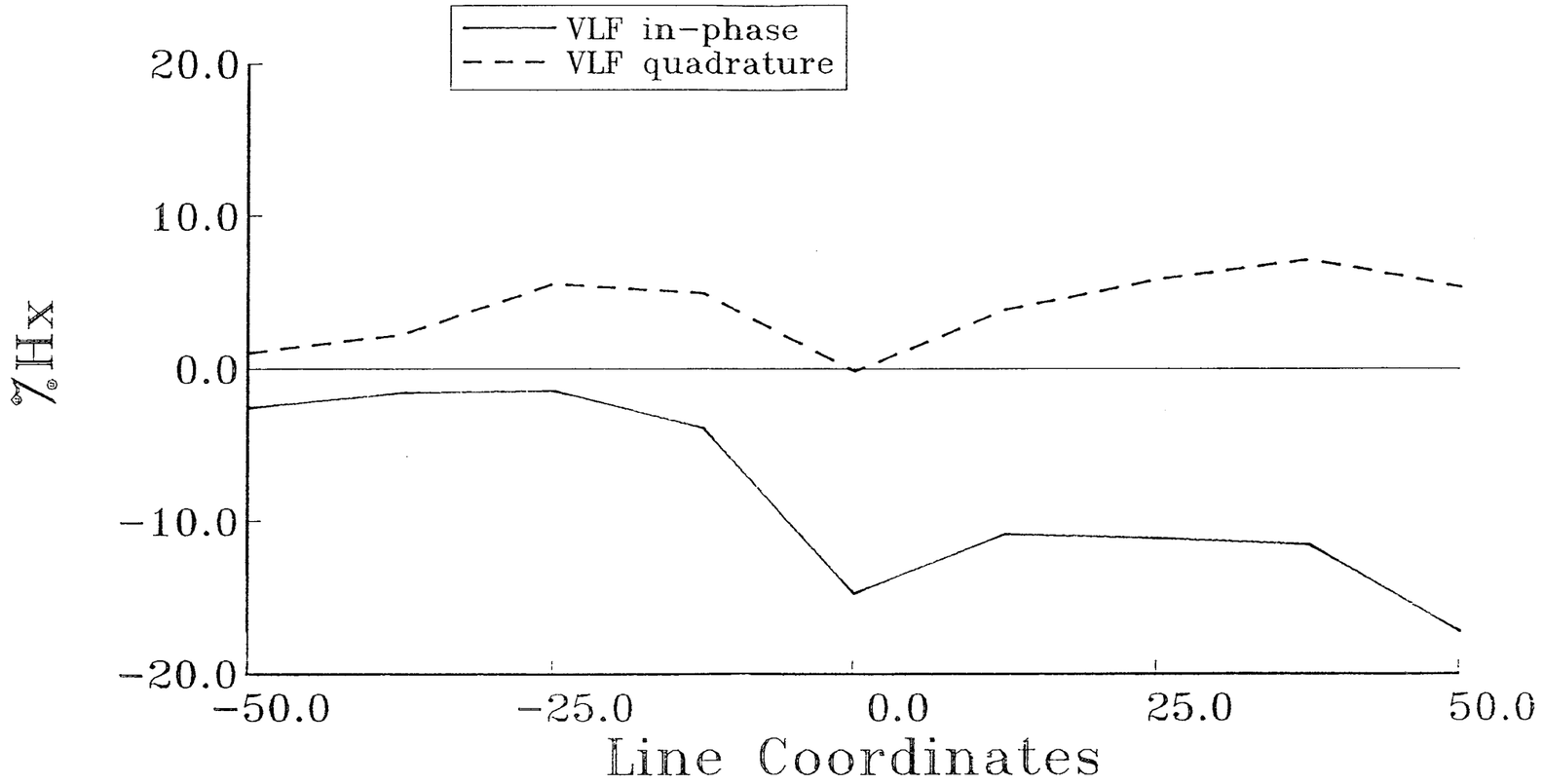
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 125N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: 150.0

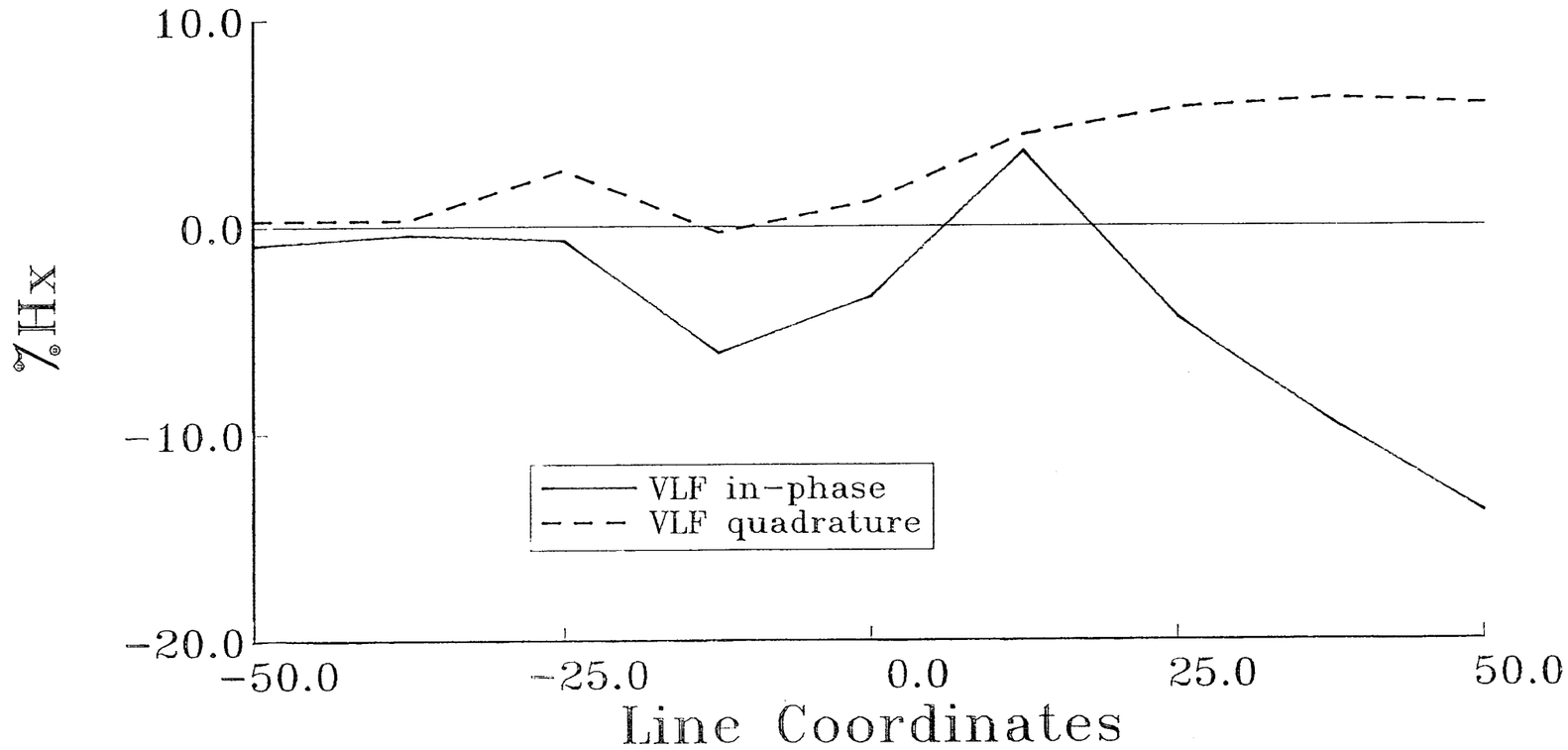
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 150N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: 175.0

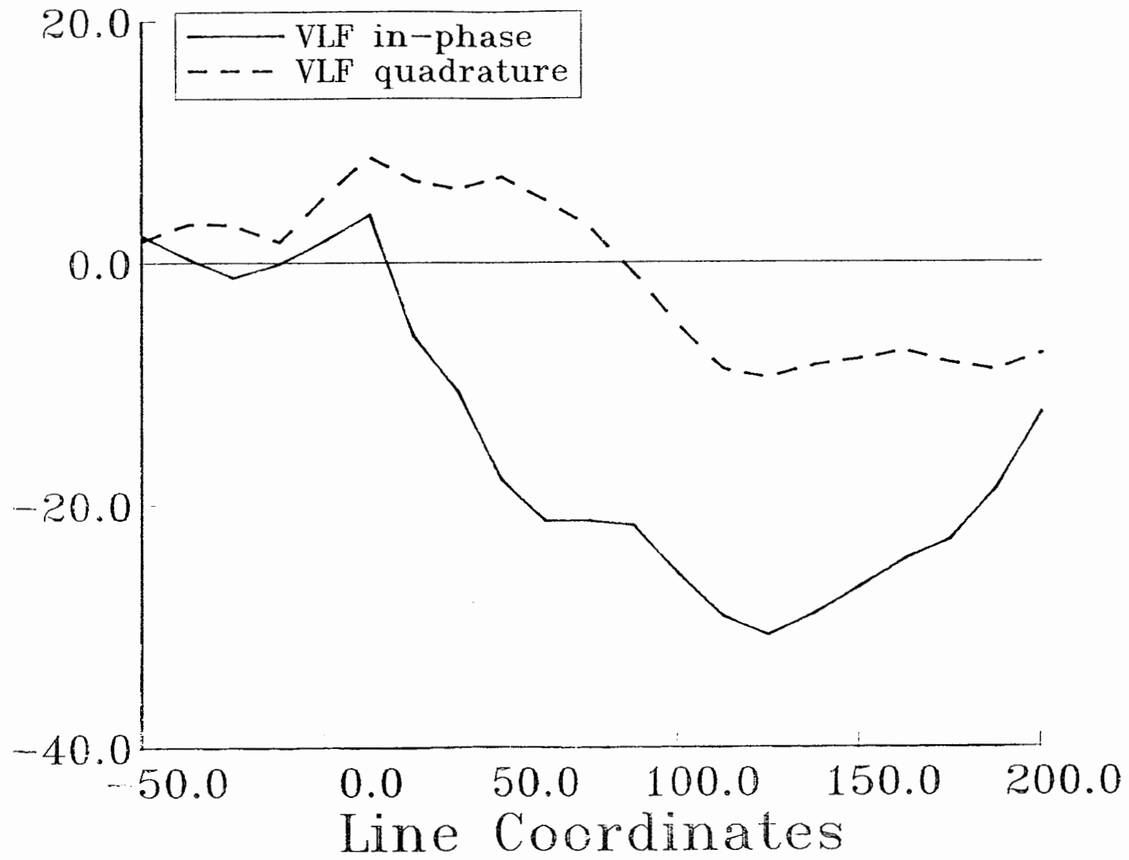
Station: NLK



CARMAC RESOURCES LTD.
WILLISON CREEK PROJECT Jackie Grid Line 175N VLF Profile (Seattle Transmitter)
Date: 09/15/90 | Scale: 1:500(A)
AMEROK GEOPHYSICS

Line: 200.0

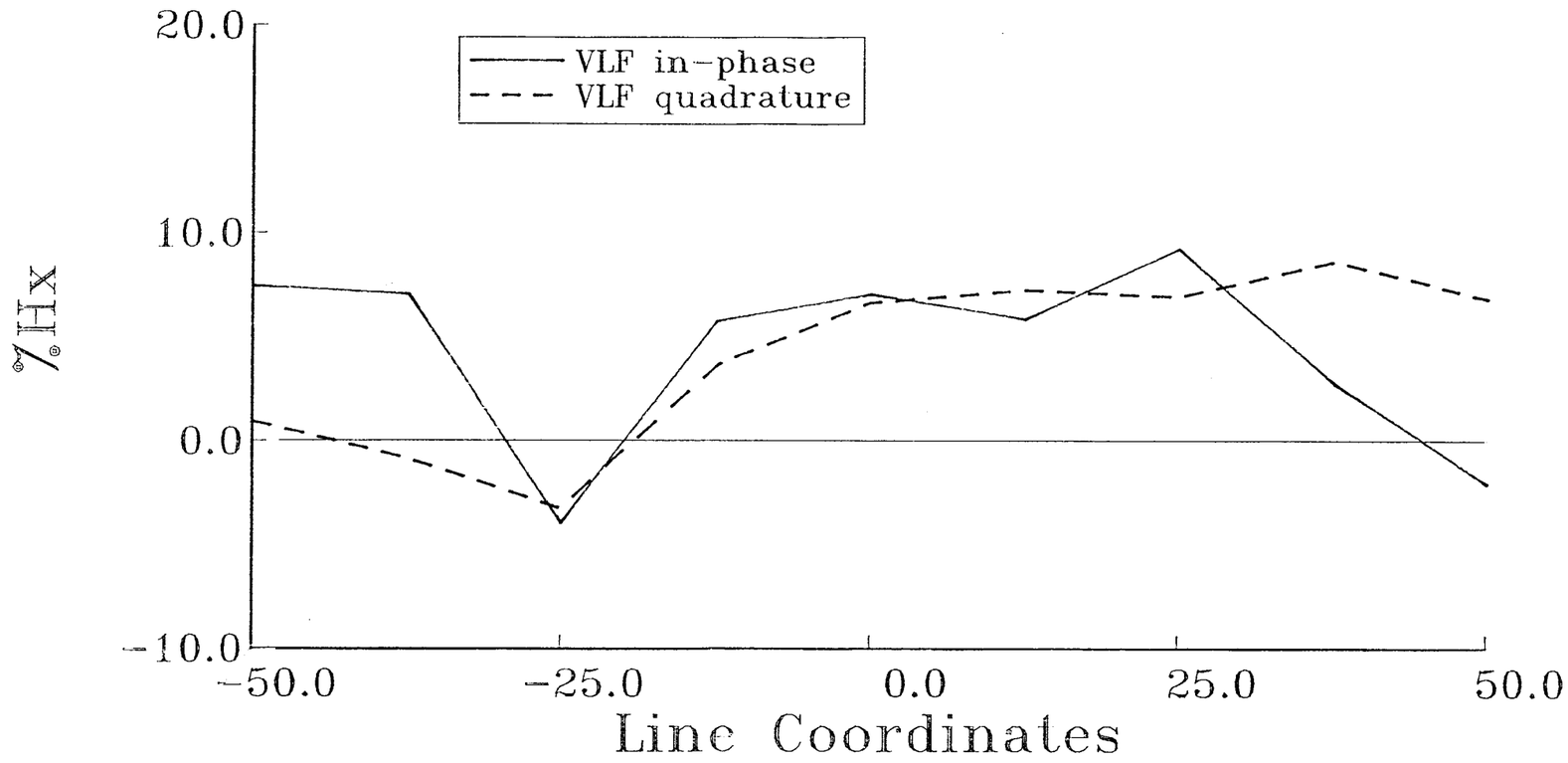
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 200N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:2000(A)
AMEROK GEOPHYSICS	

Line: 225.0

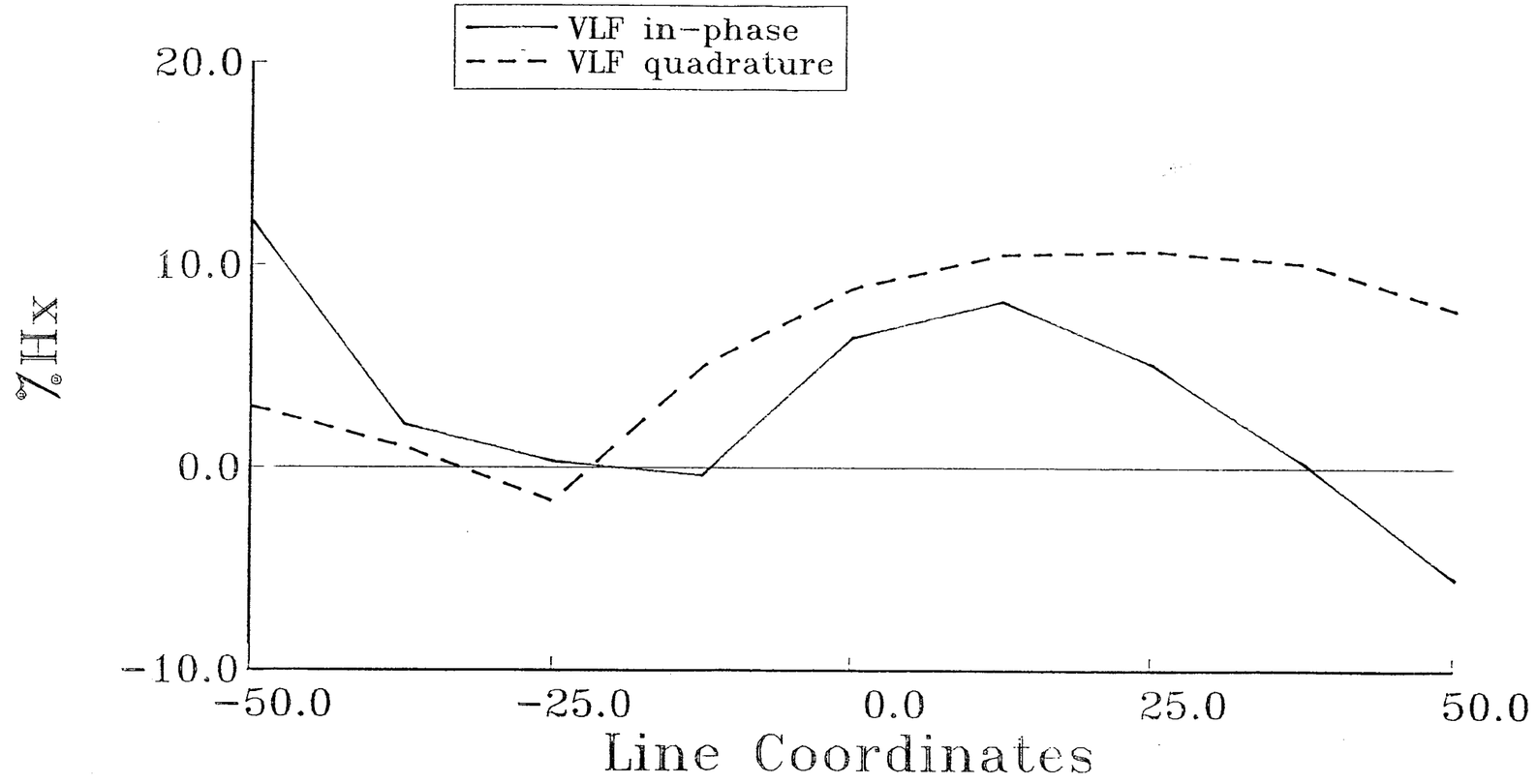
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 225N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: 250.0

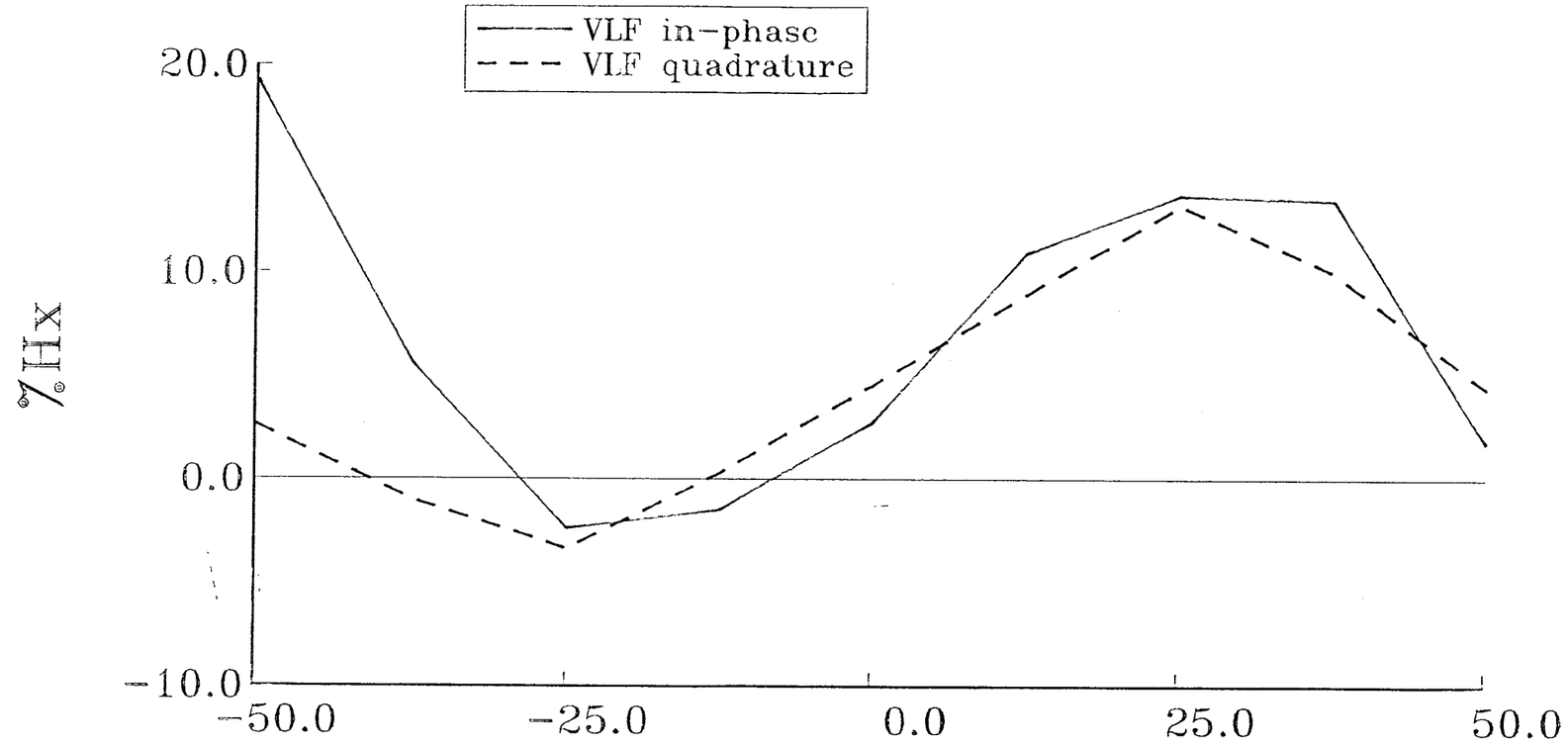
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 250N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: 275.0

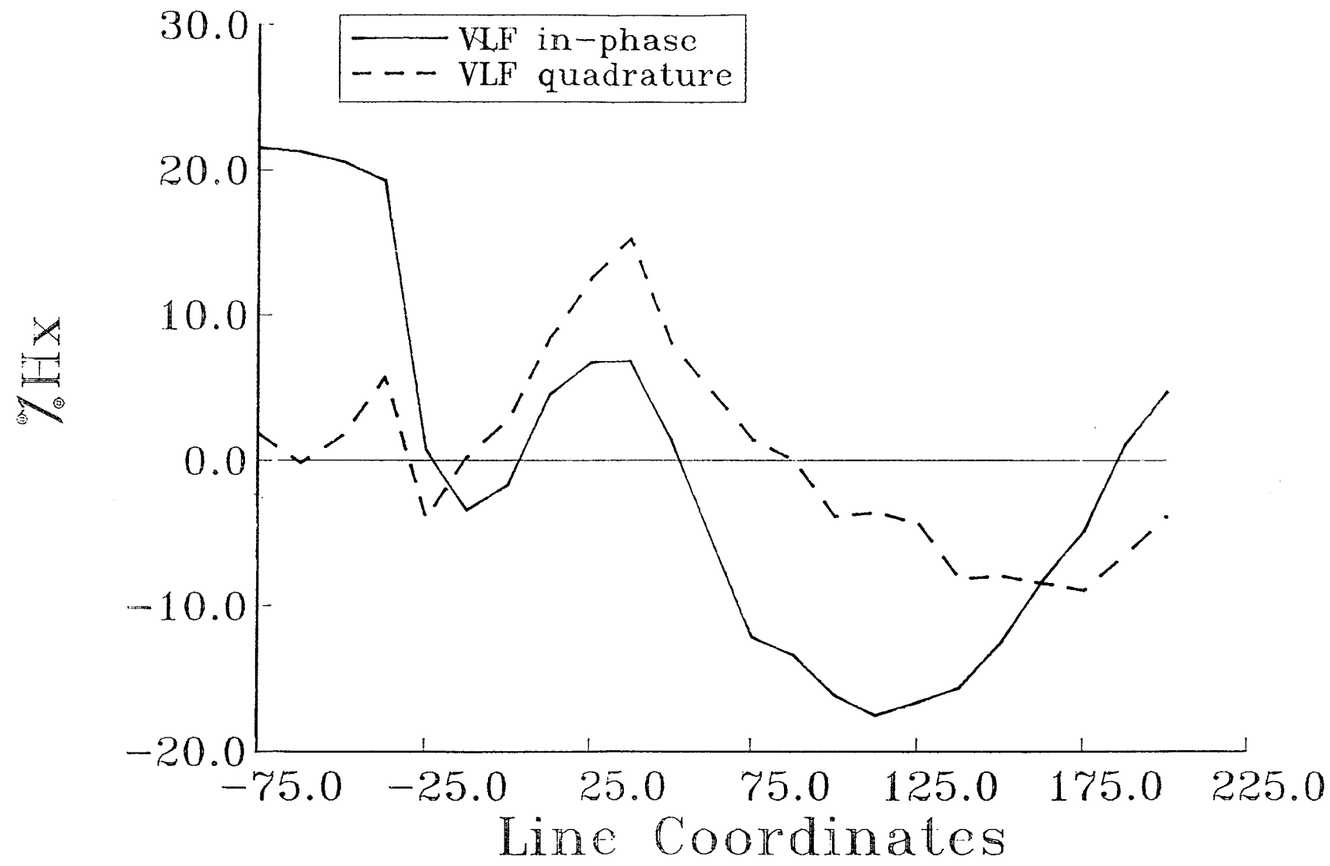
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 275N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: 300.0

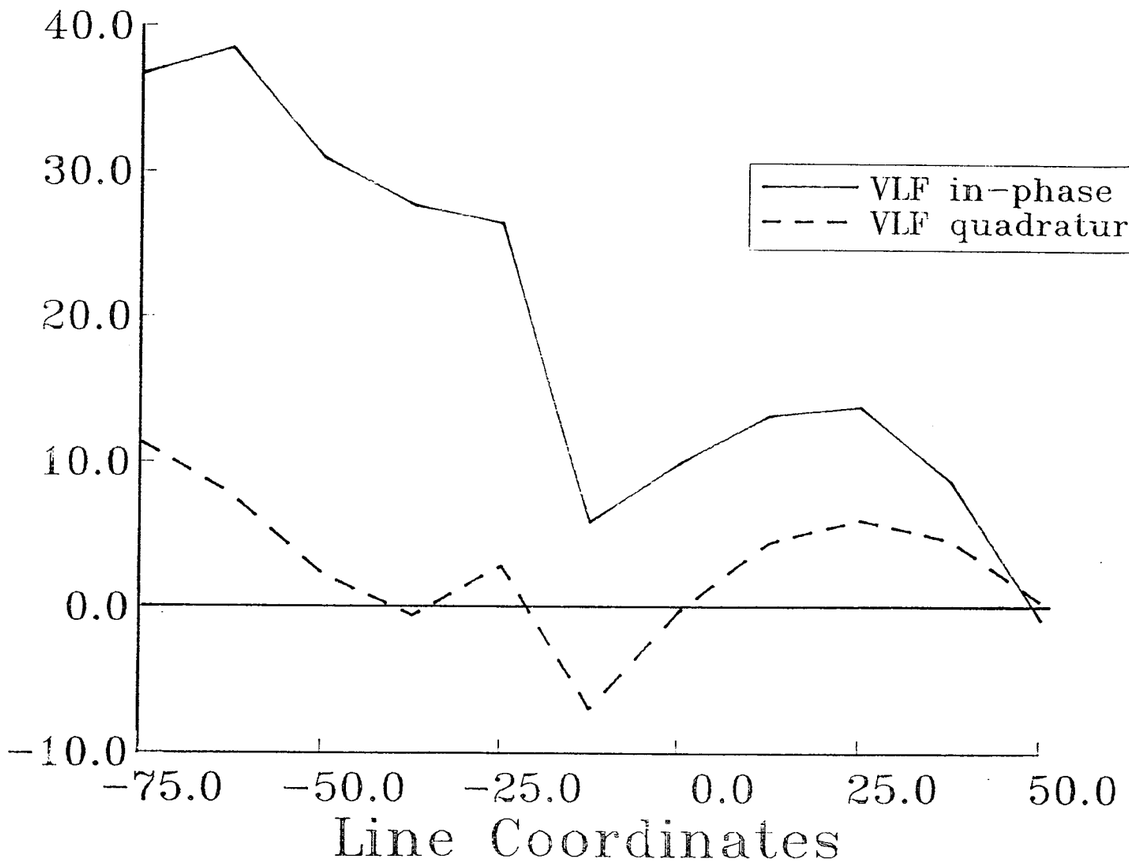
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 300N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:2000(A)
AMEROK GEOPHYSICS	

Line: 325.0

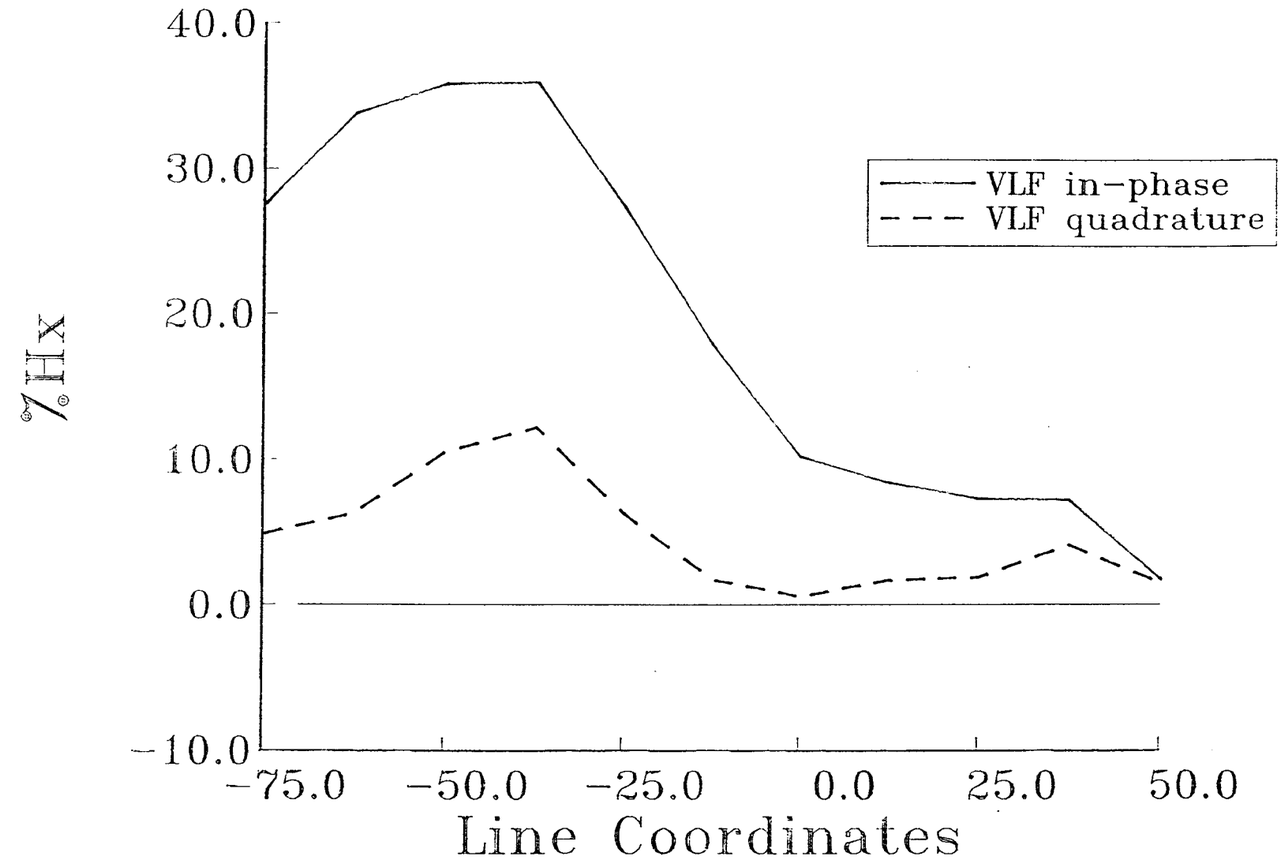
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 325N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 350.0

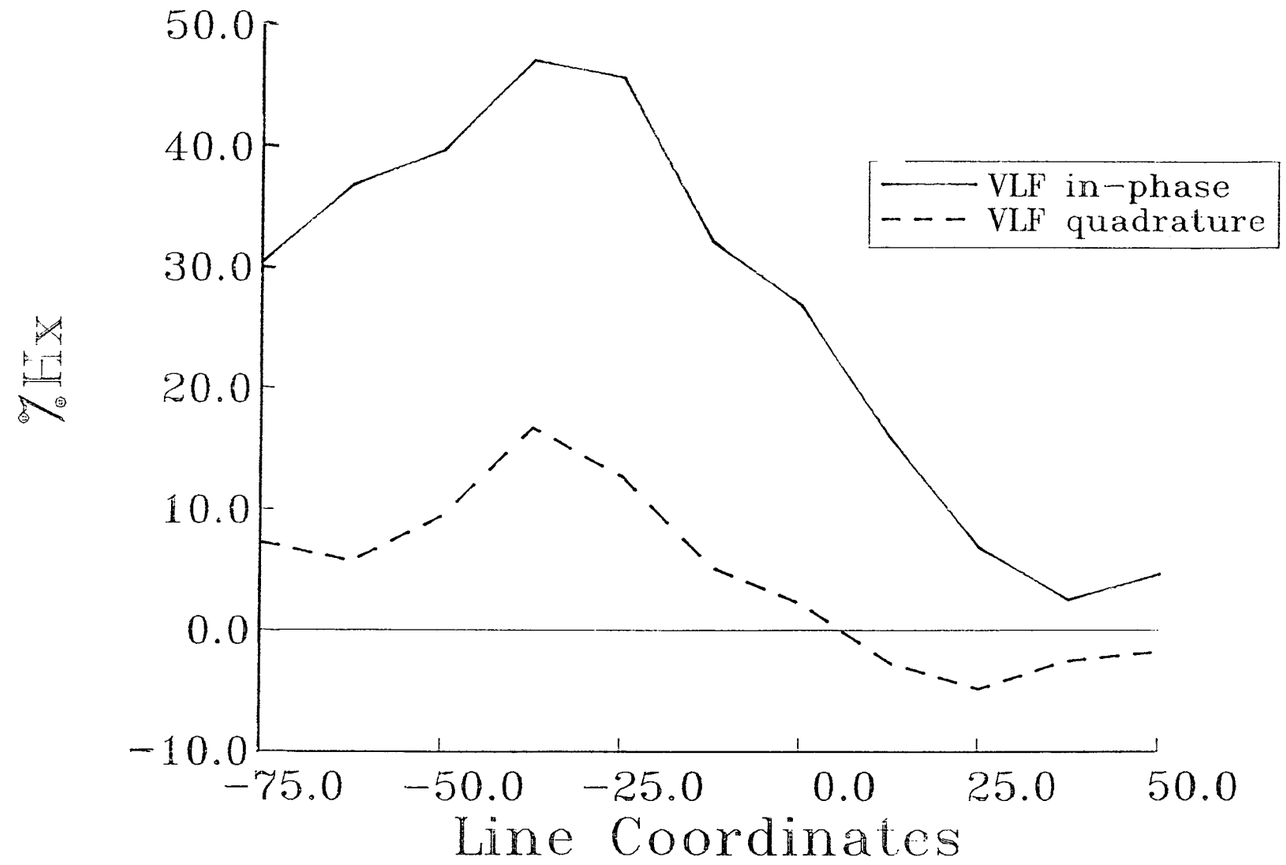
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 350N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 375.0

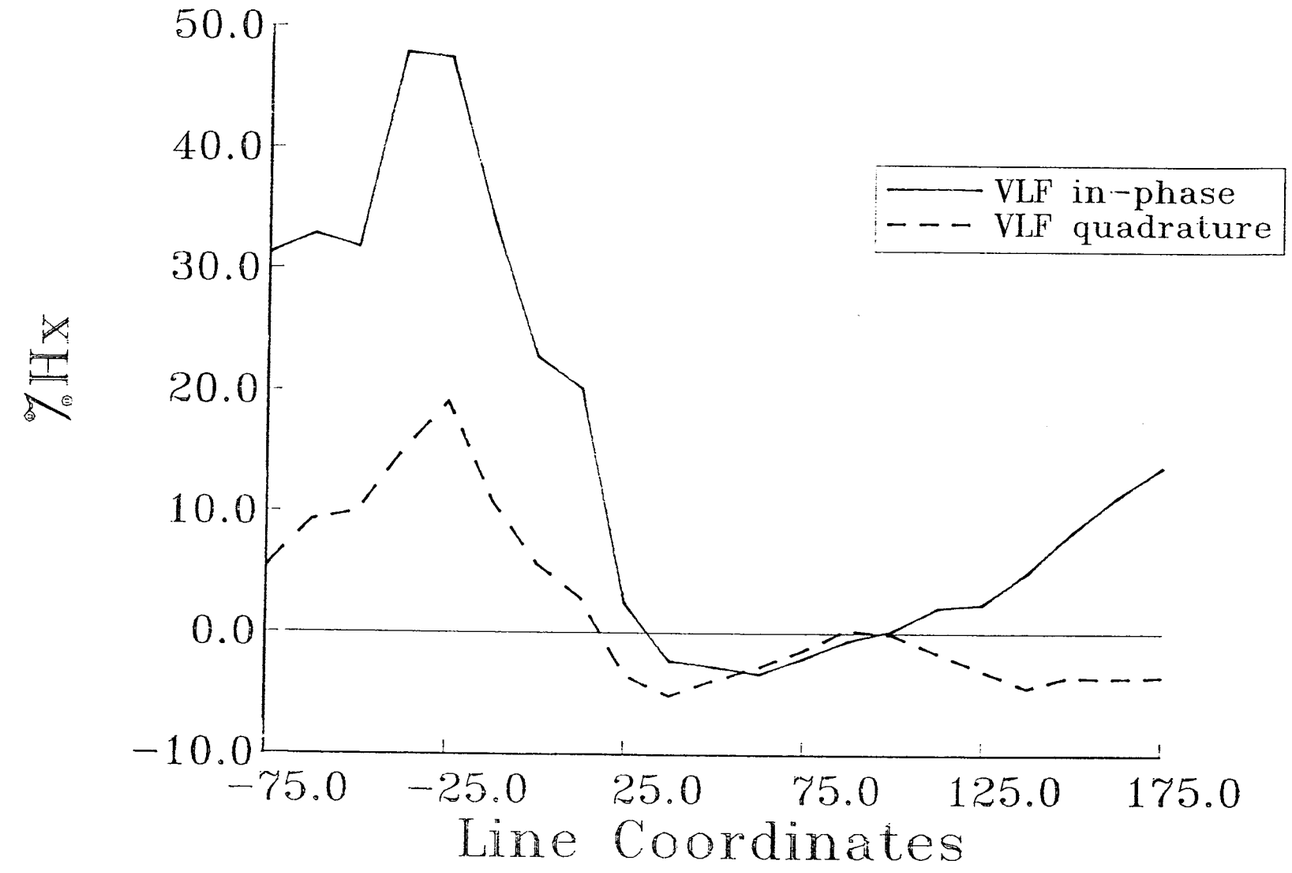
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 375N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 400.0

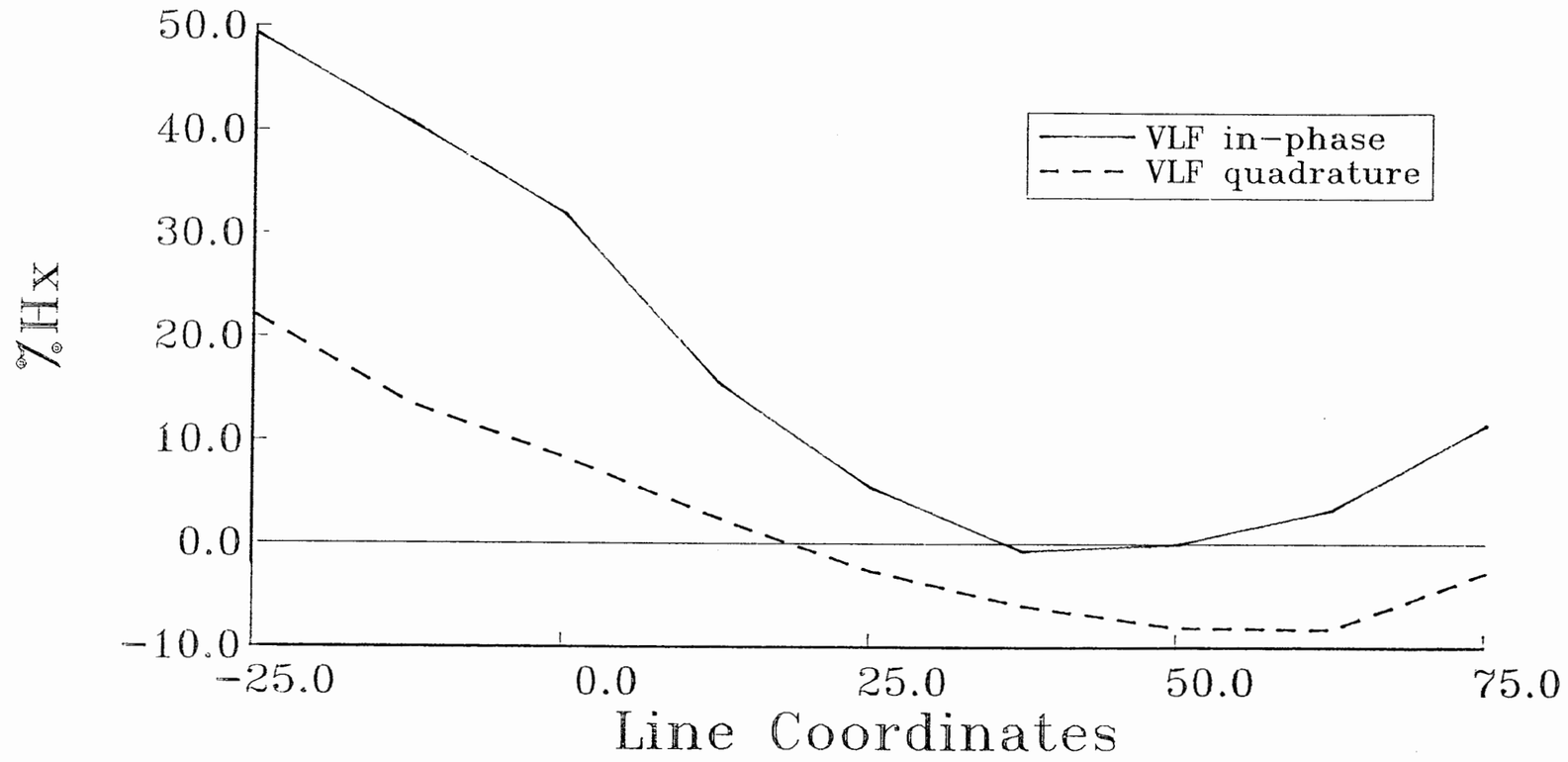
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 400N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:2000(A)
AMEROK GEOPHYSICS	

Line: 500.0

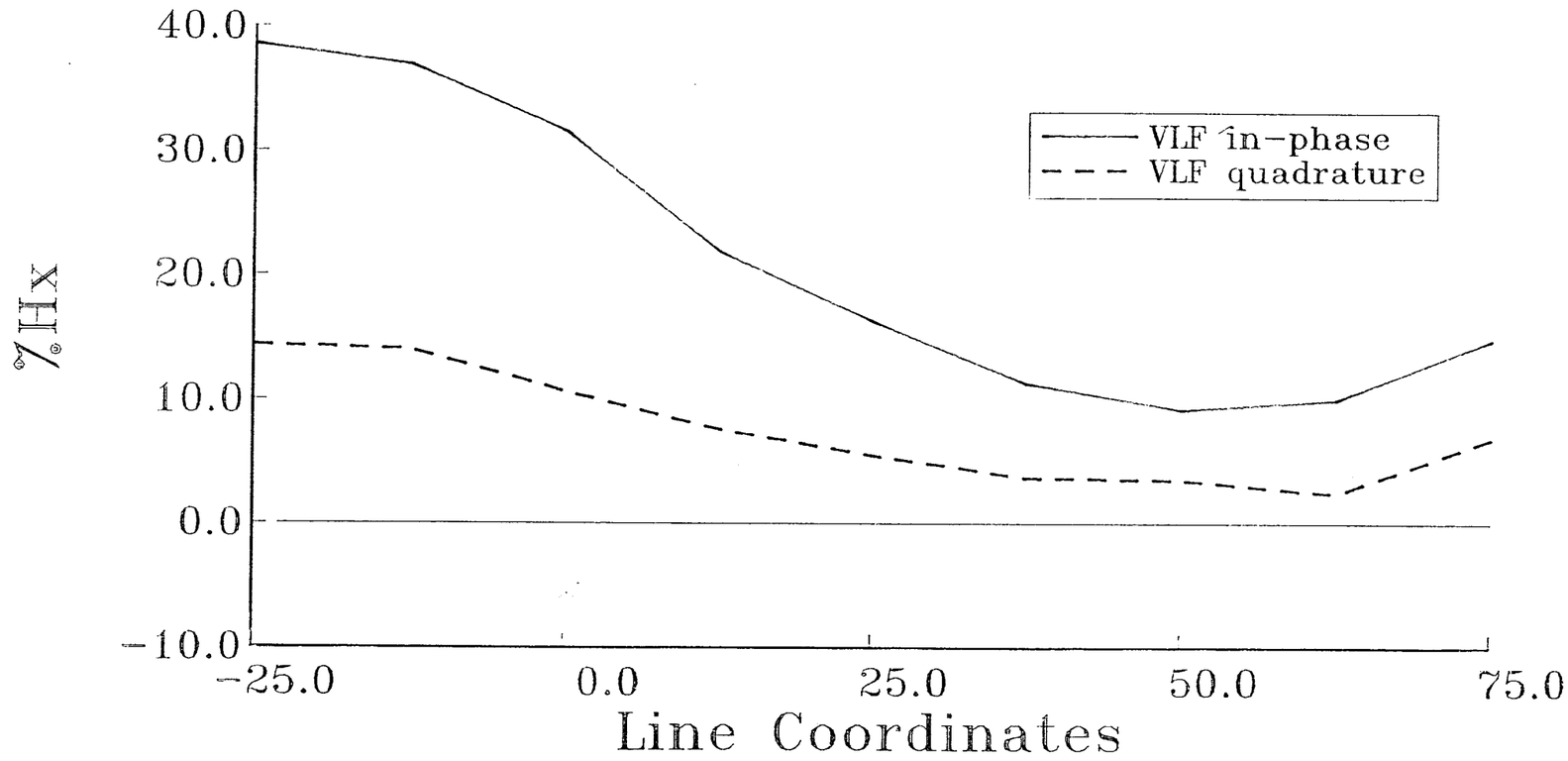
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 500N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: 600.0

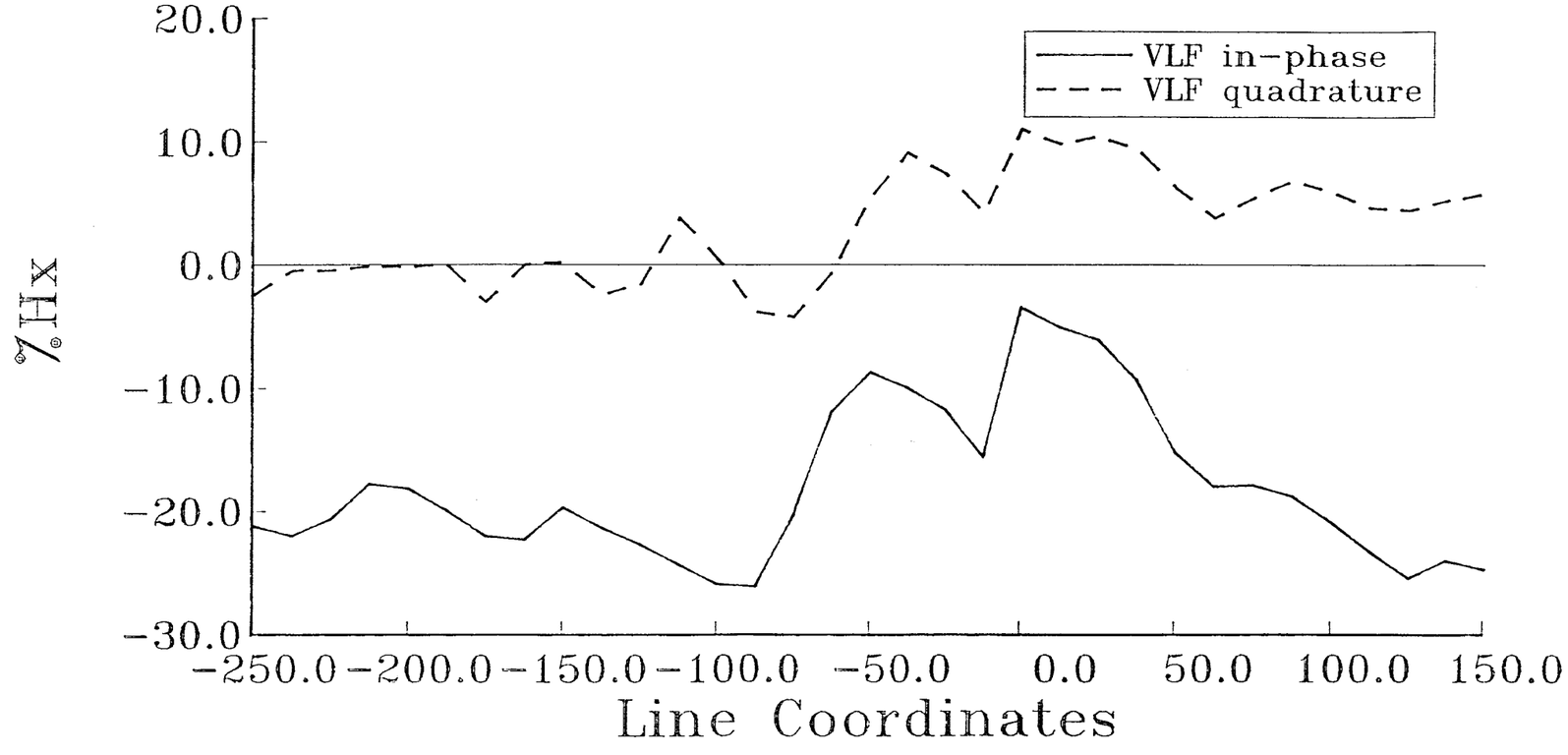
Station: NLK



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 600N VLF Profile (Seattle Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: −100.0

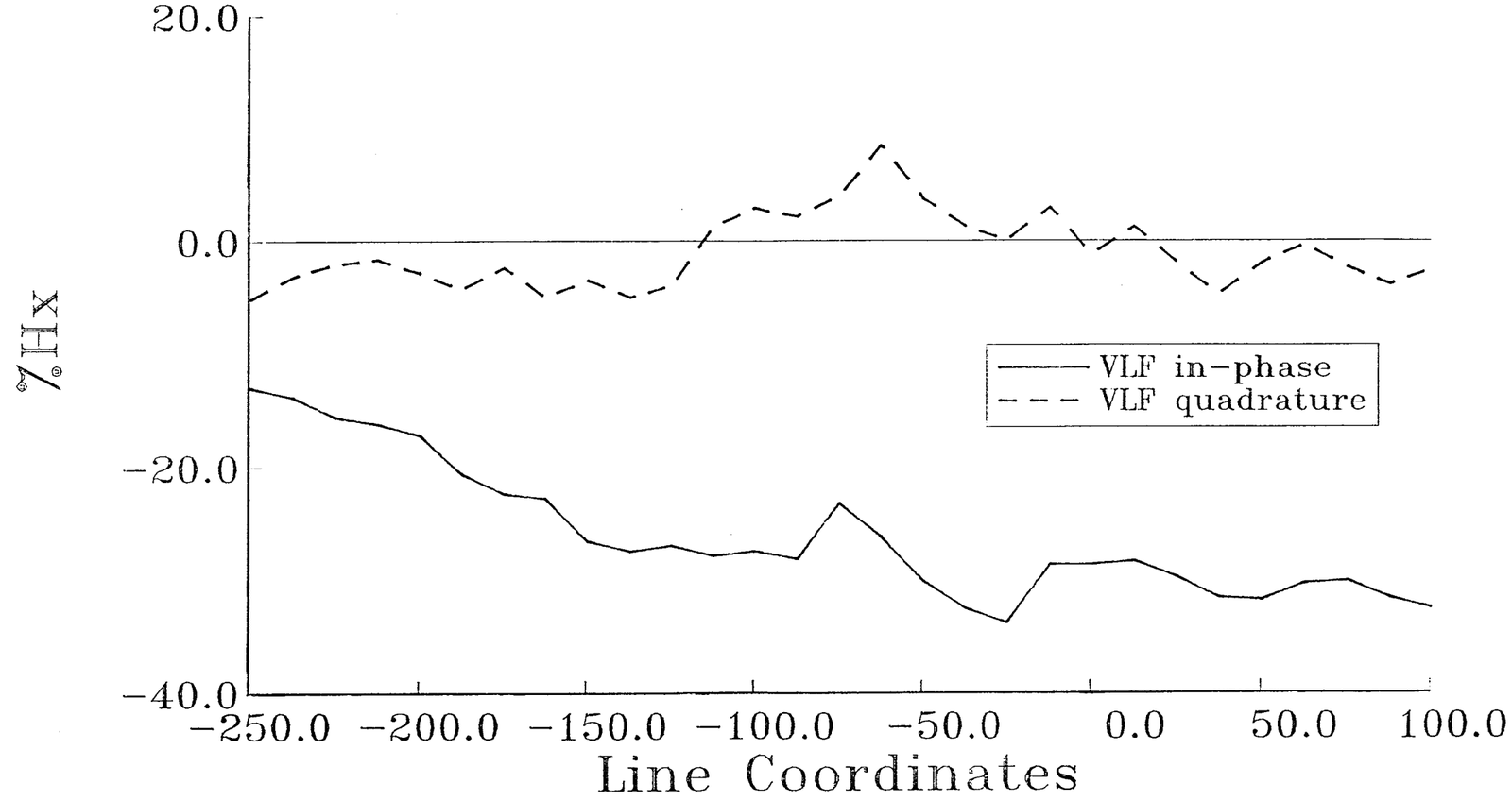
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 100S VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:2000(A)
AMEROK GEOPHYSICS	

Line: .0

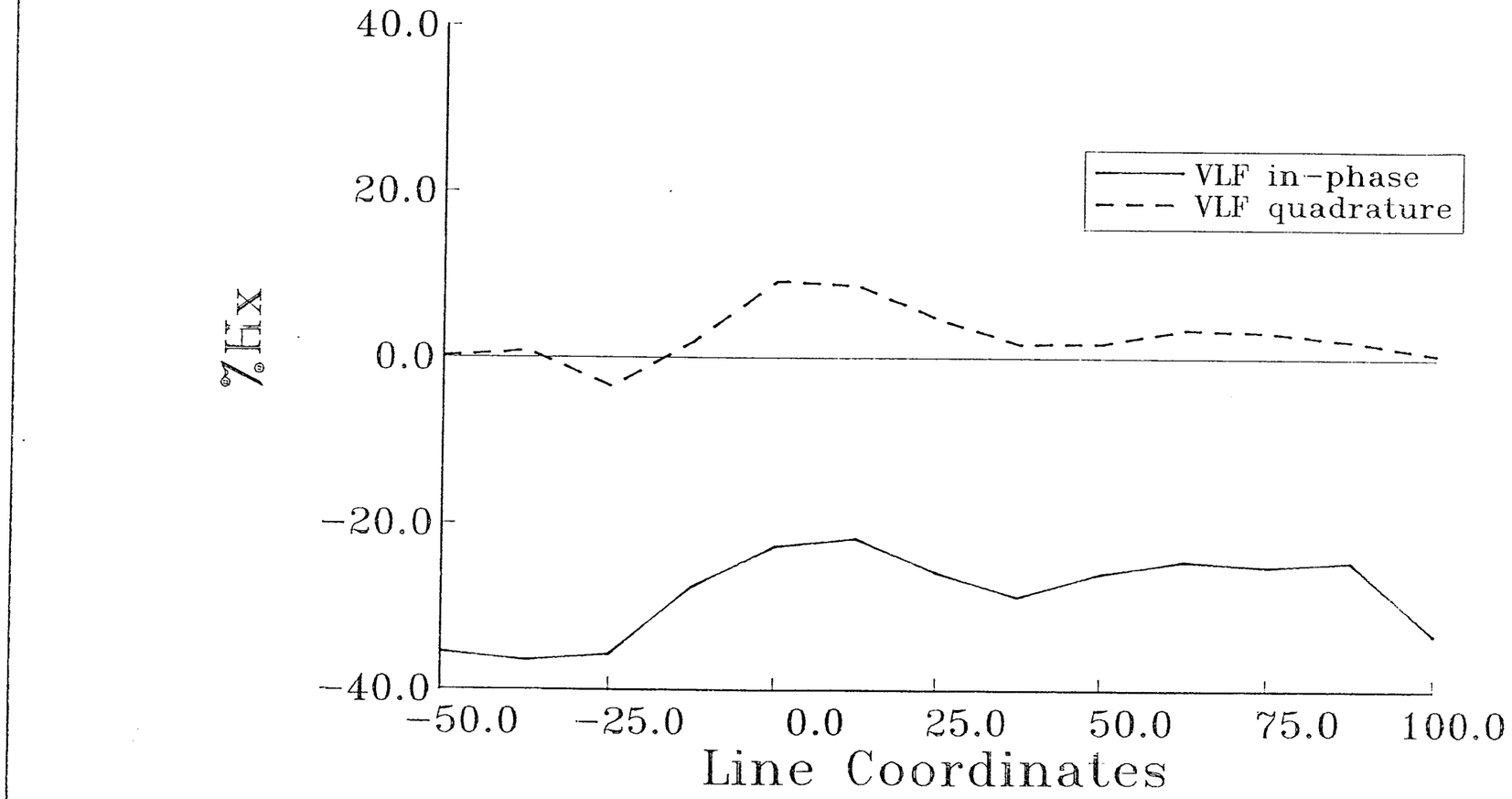
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line ON VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:2000(A)
AMEROK GEOPHYSICS	

Line: 25.0

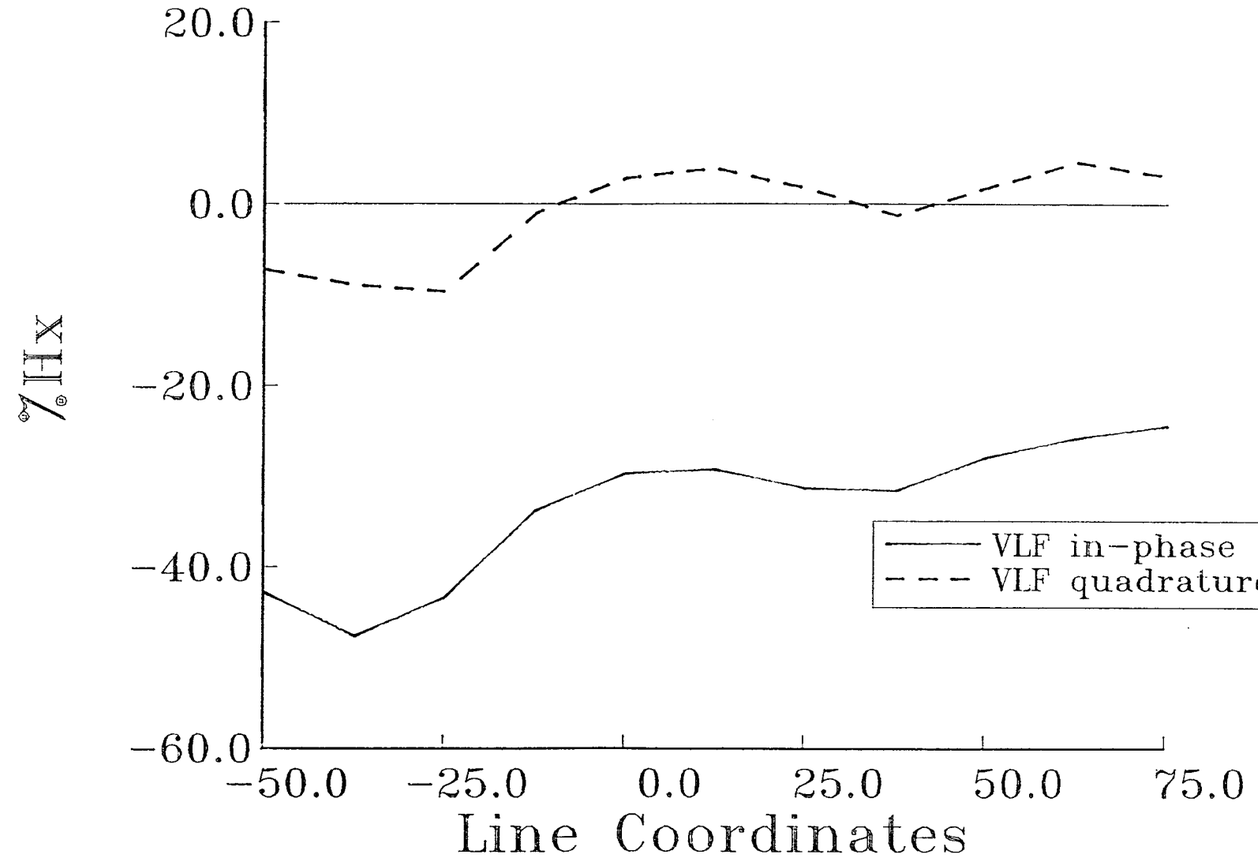
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 25N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 50.0

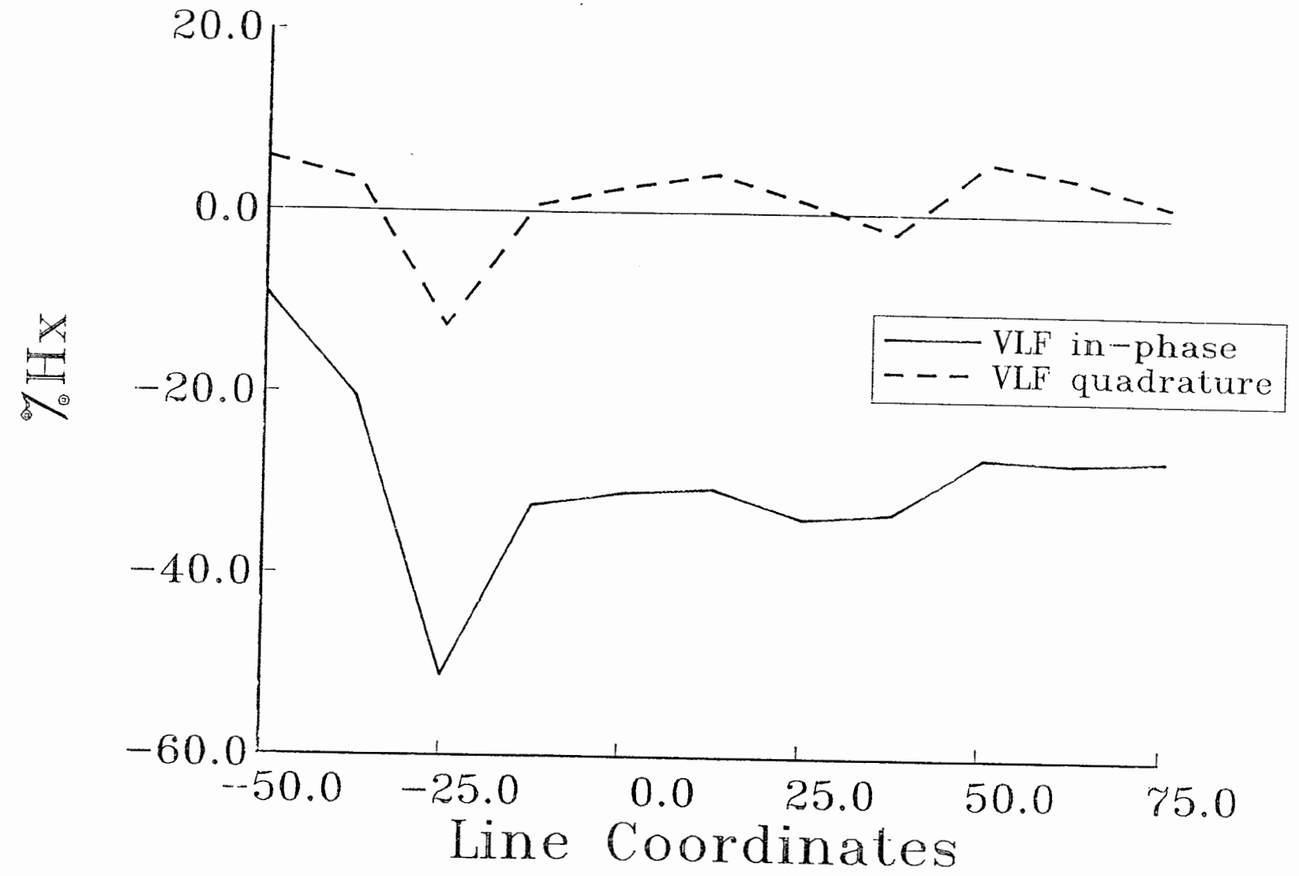
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 50N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 75.0

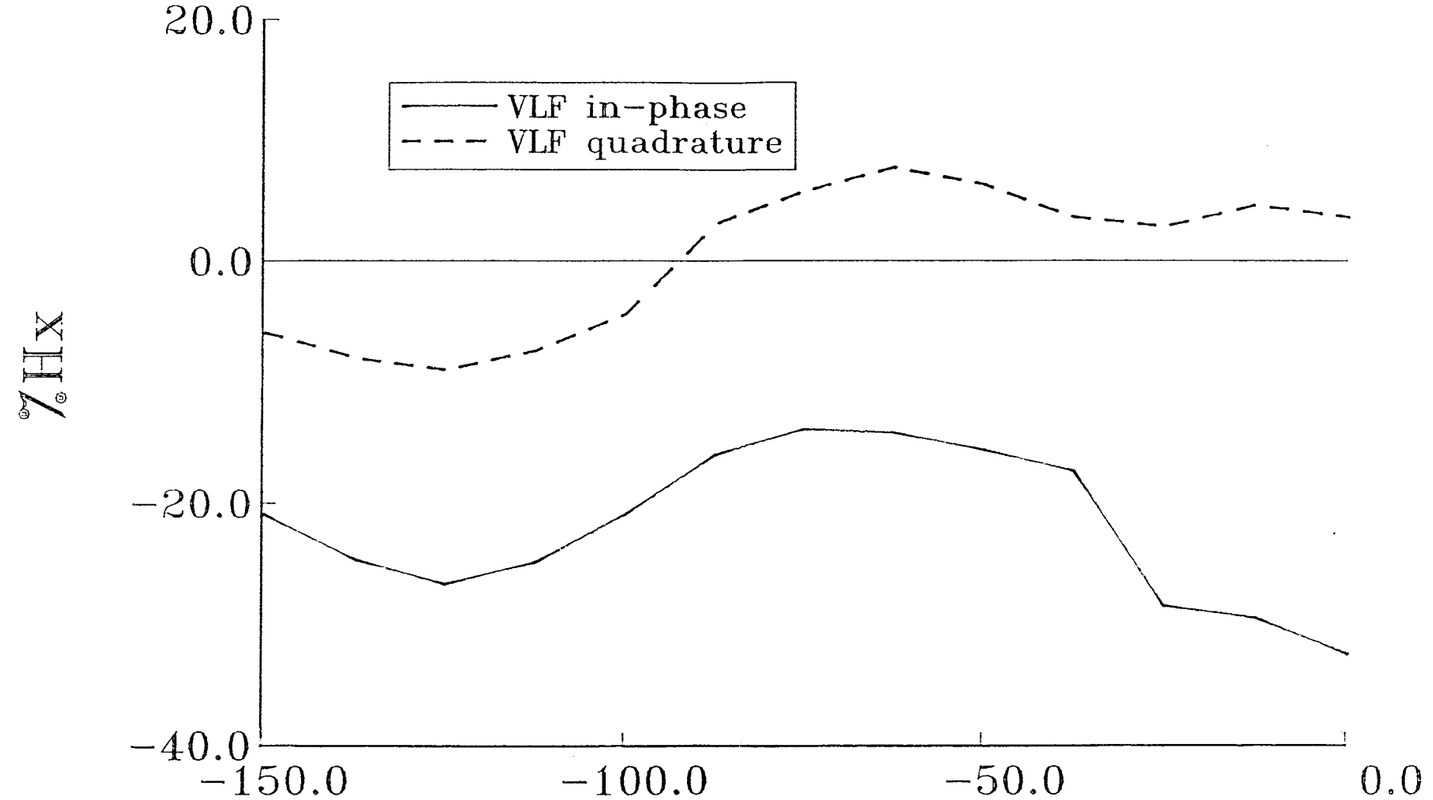
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 75N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 100.0

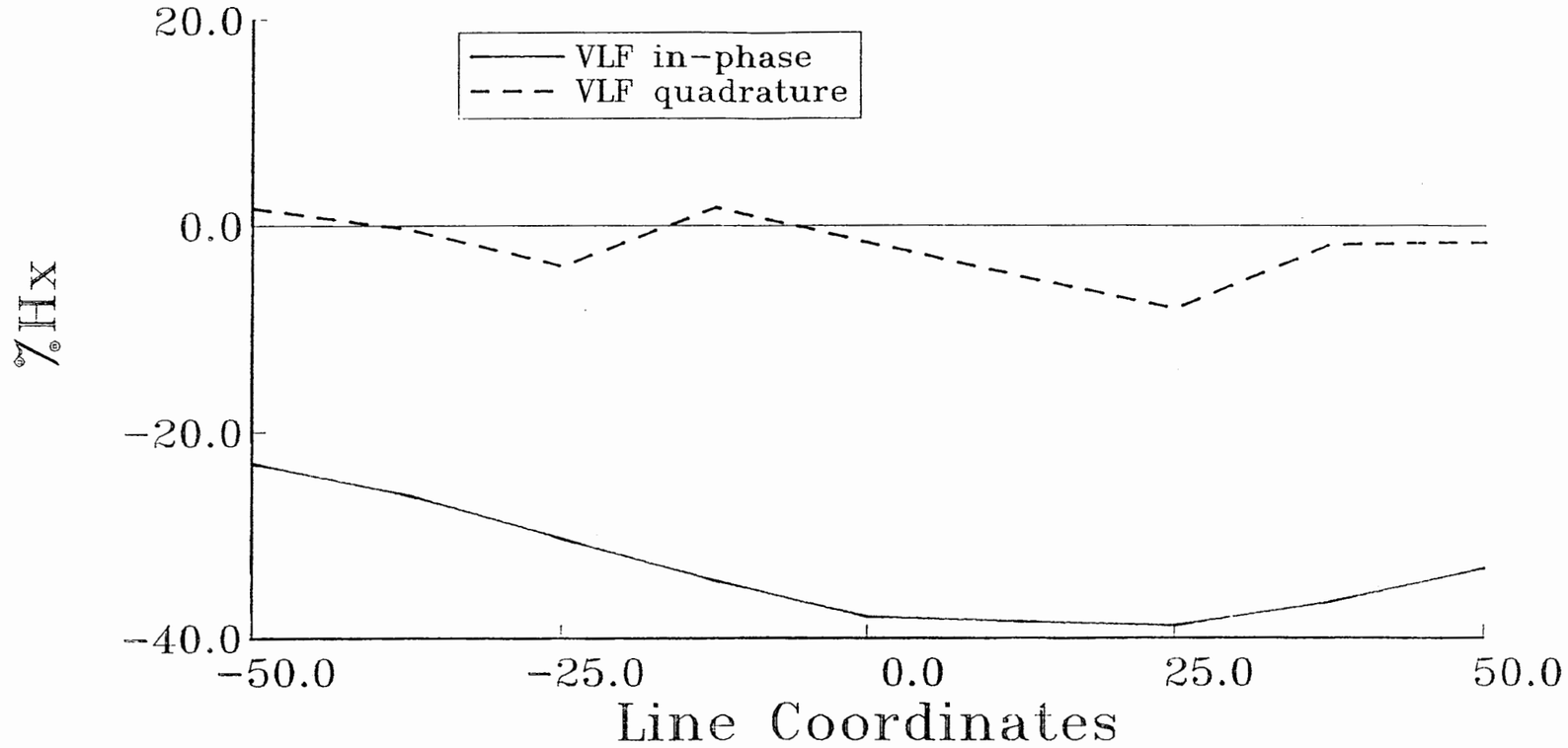
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 100N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 125.0

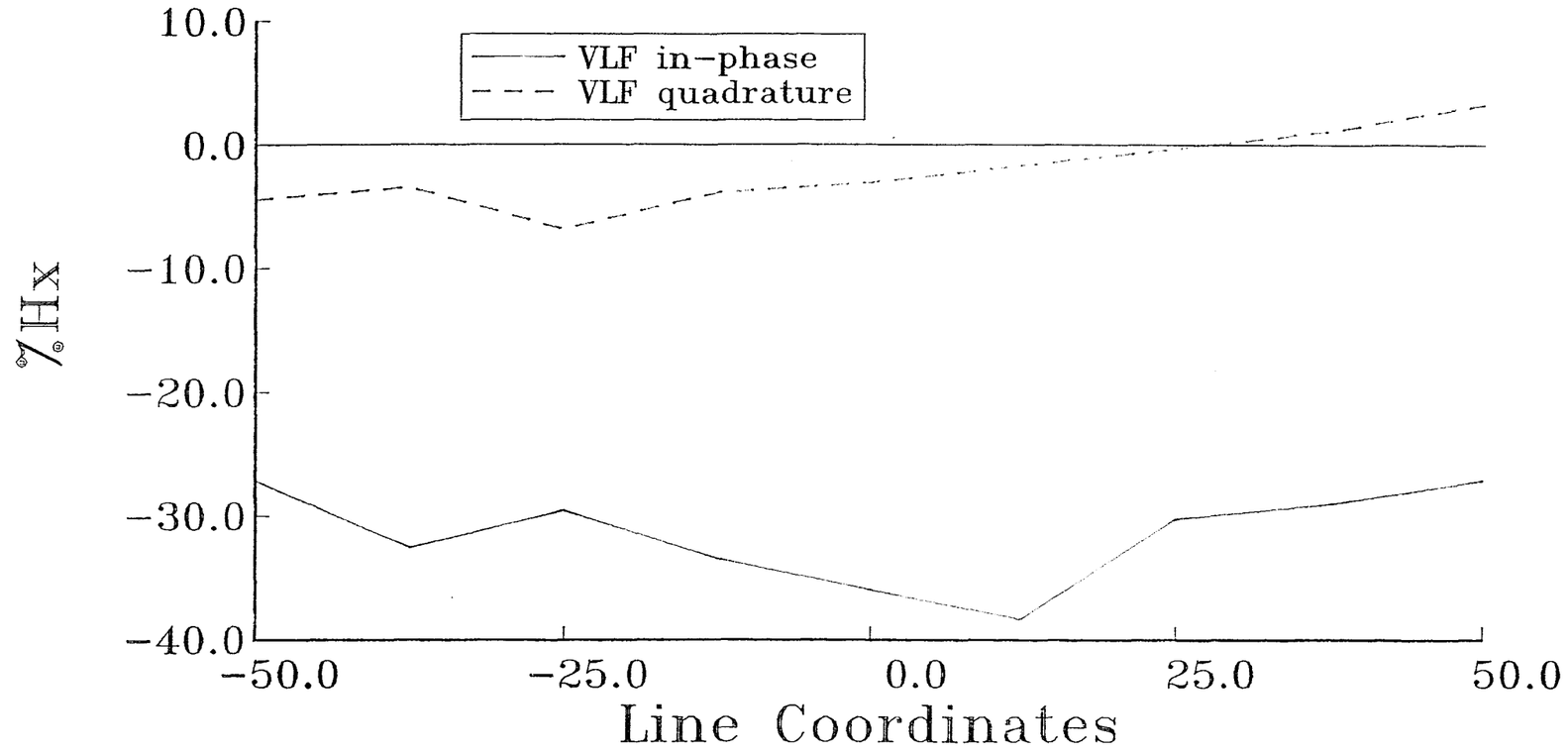
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 125N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: 150.0

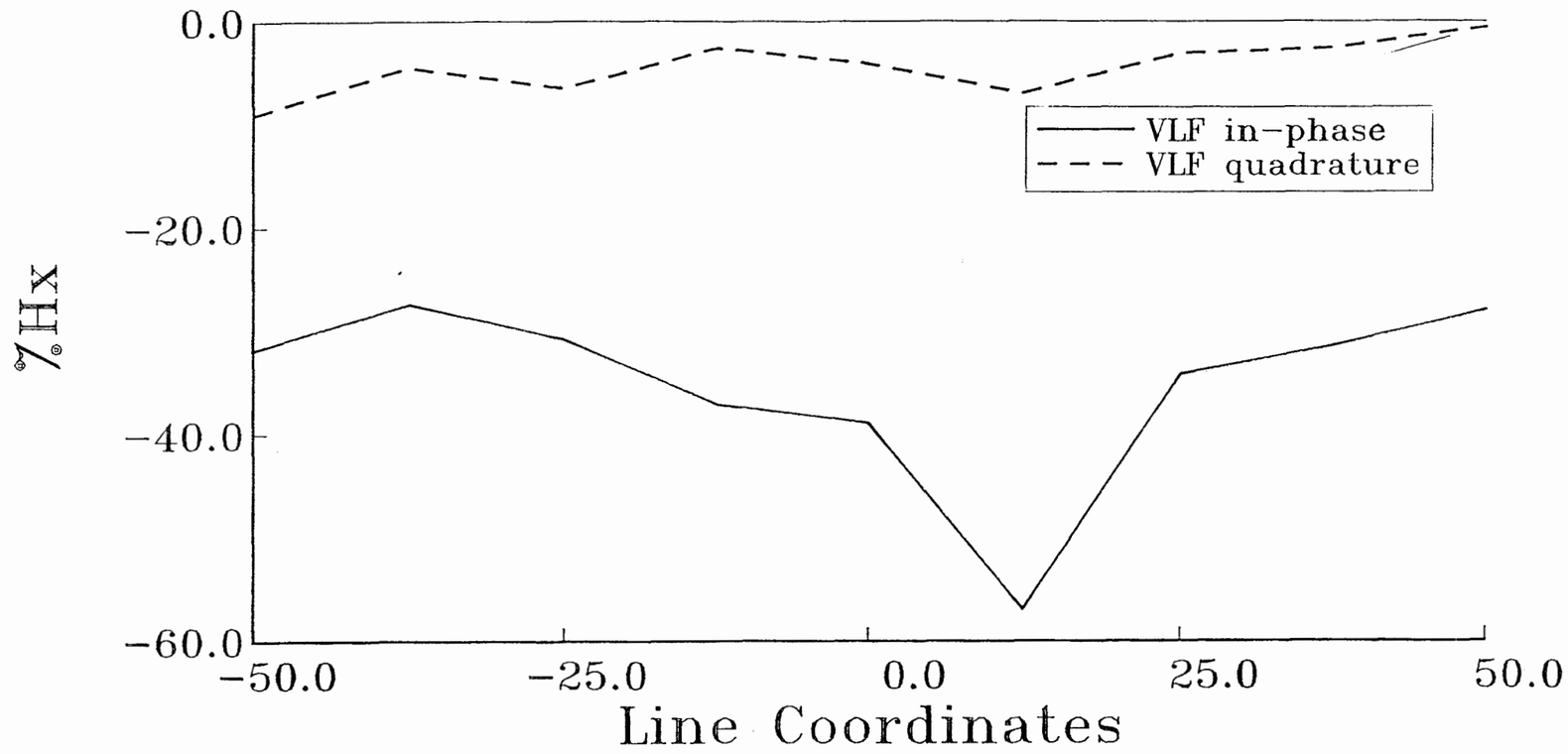
Station: NAA



CARMAC RESOURCES LTD.
WILLISON CREEK PROJECT Jackie grid Line 150N VLF Profile (Cutler Transmitter)
Date: 09/15/90 | Scale: 1:500(A)
AMEROK GEOPHYSICS

Line: 175.0

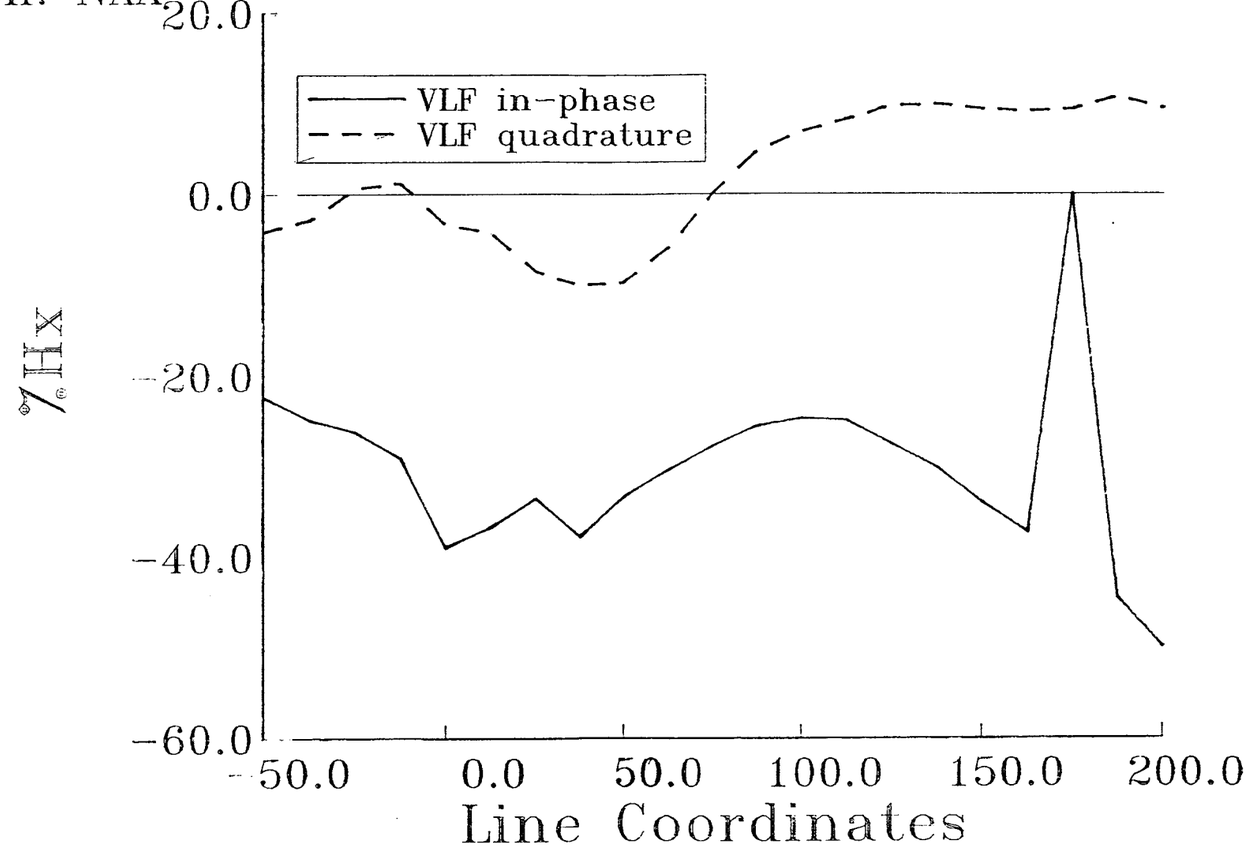
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 175N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: 200.0

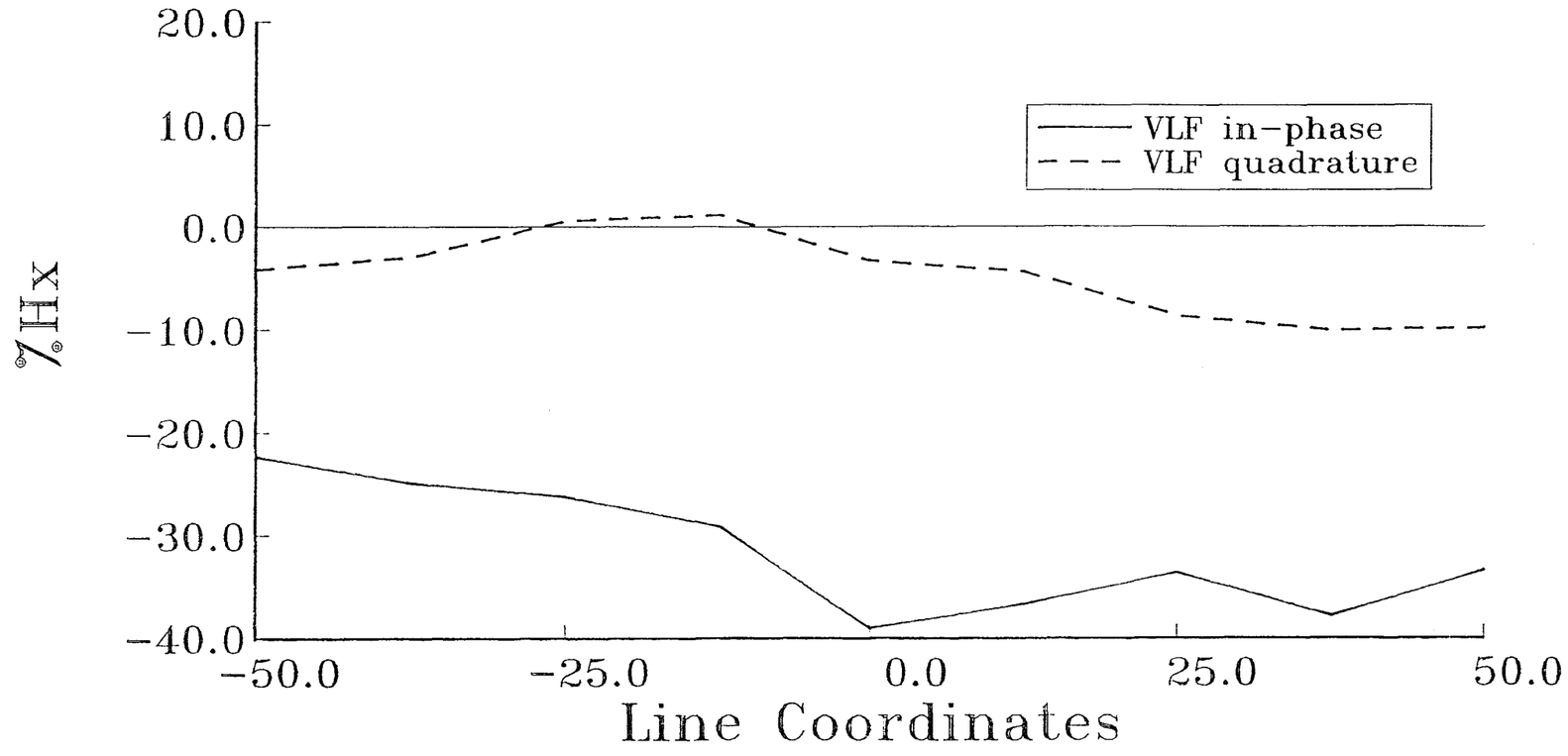
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 200N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:2000(A)
AMEROK GEOPHYSICS	

Line: 200.0

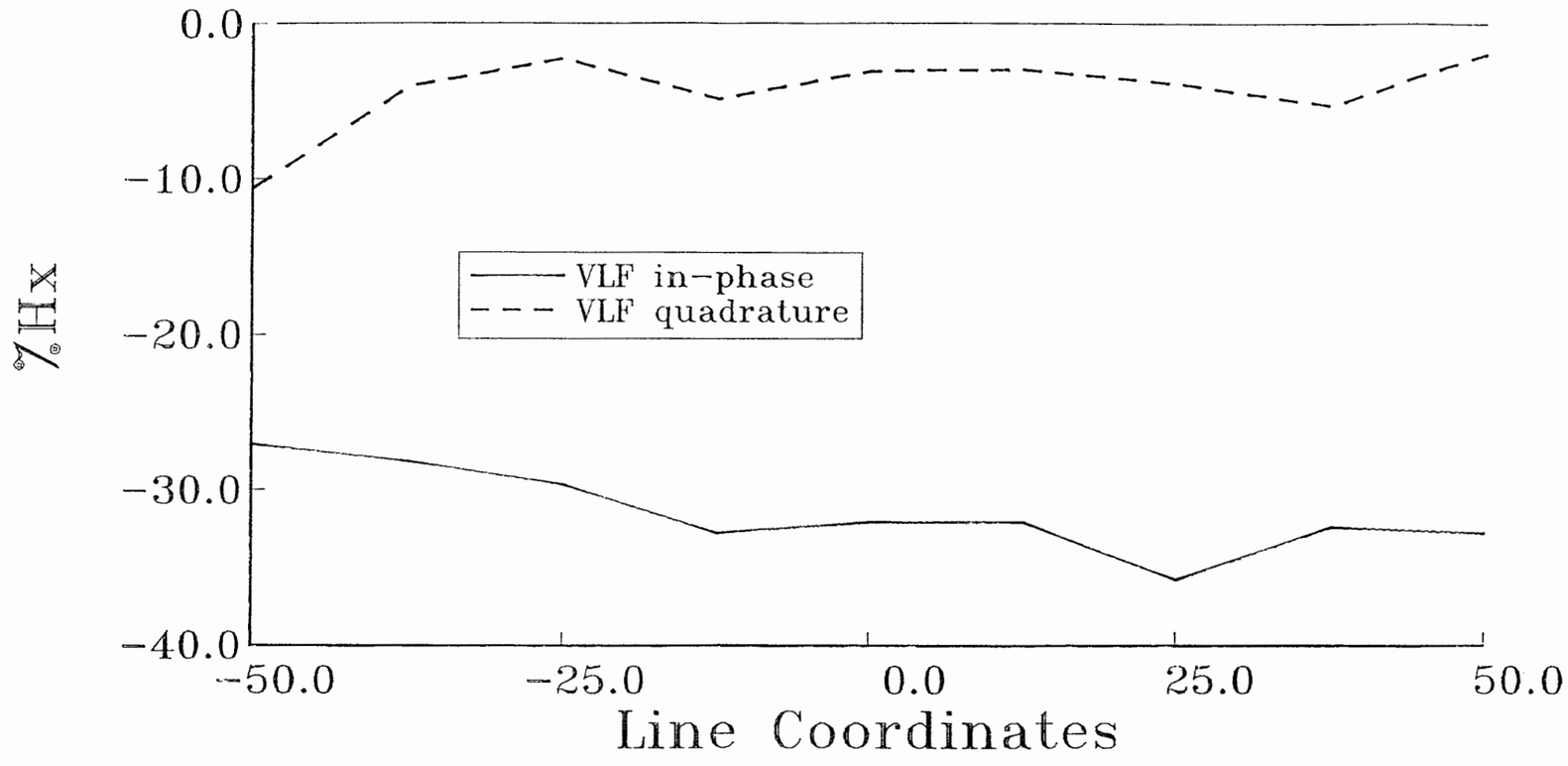
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 200N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: 225.0

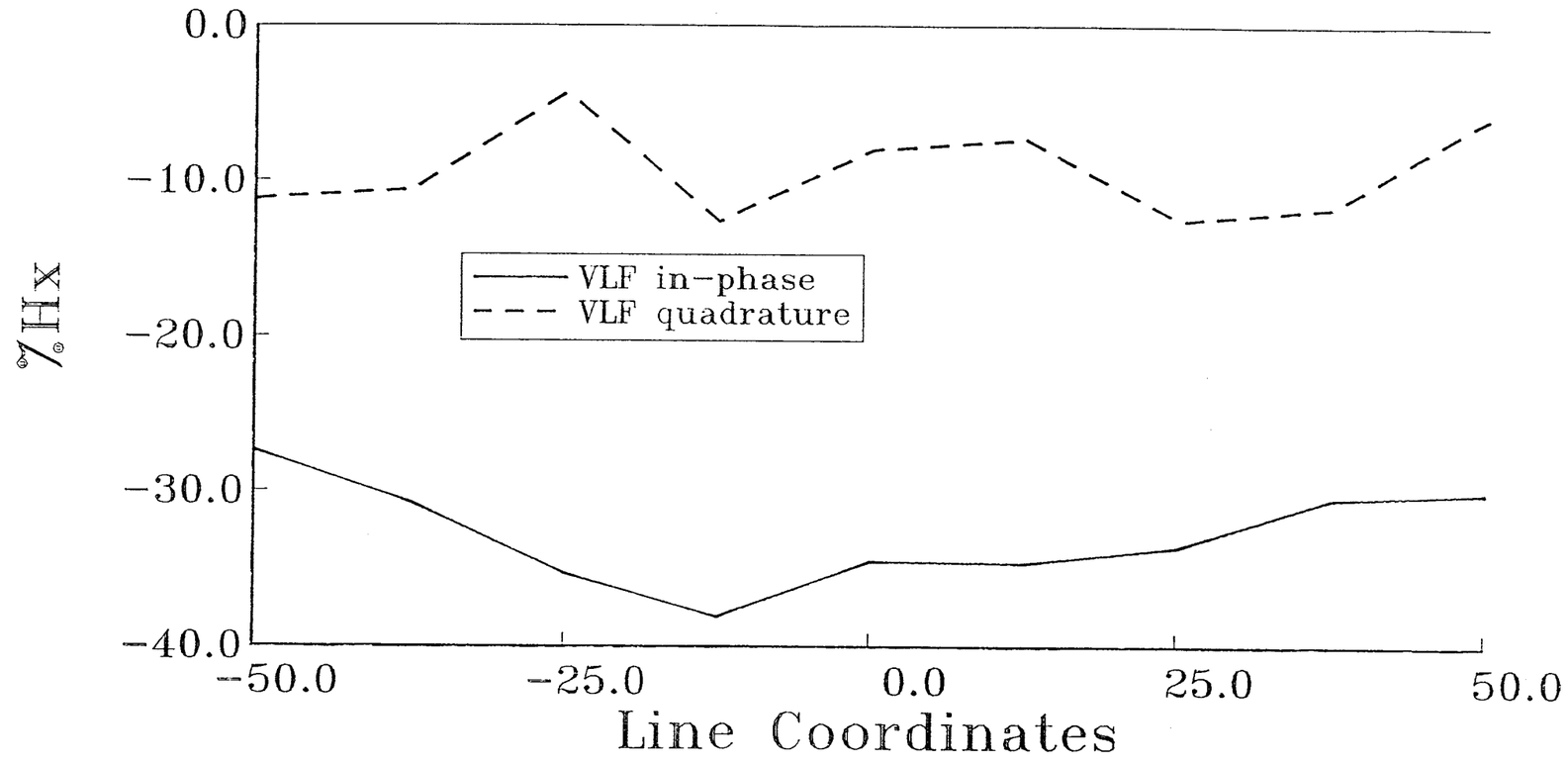
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 225N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: 250.0

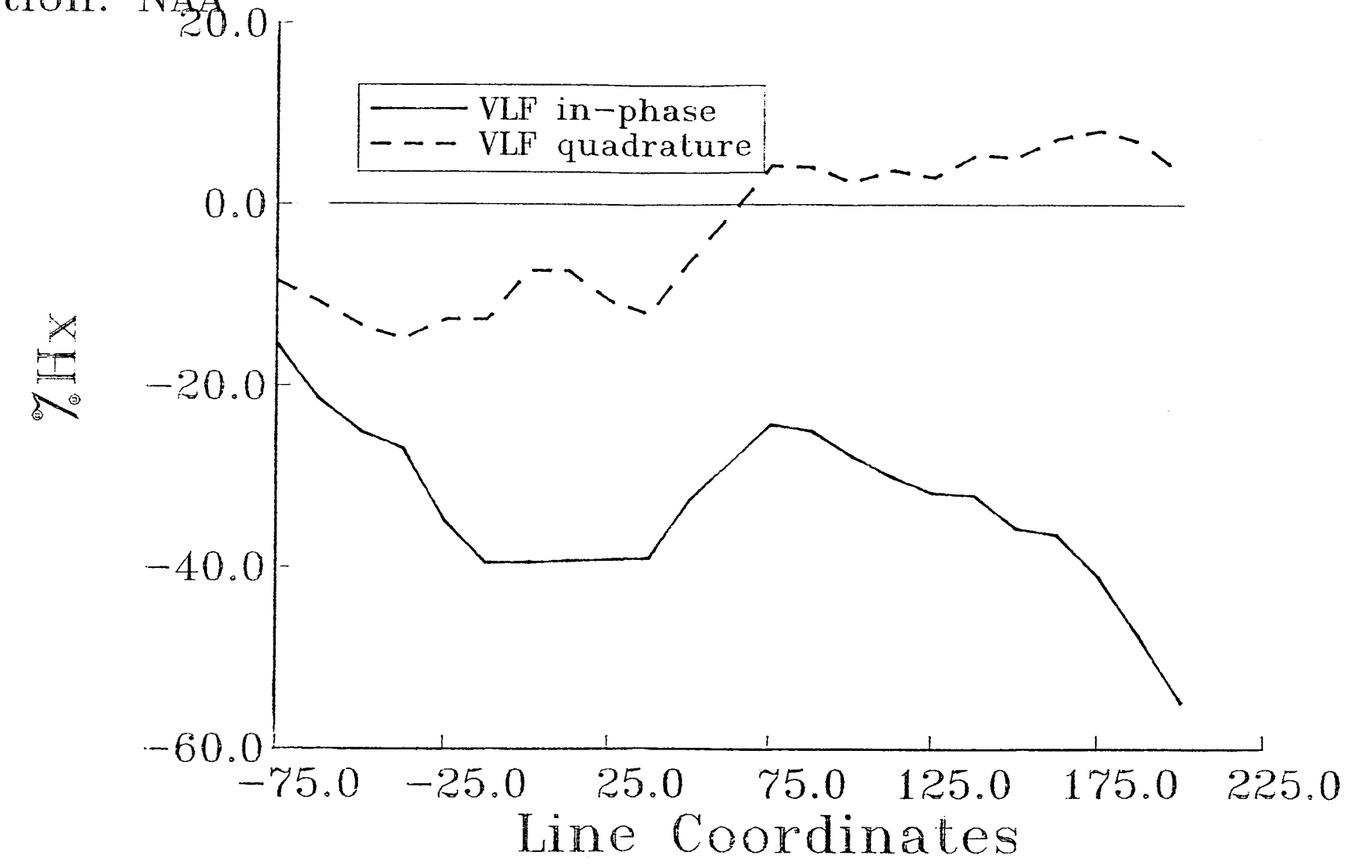
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 250N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	

Line: 300.0

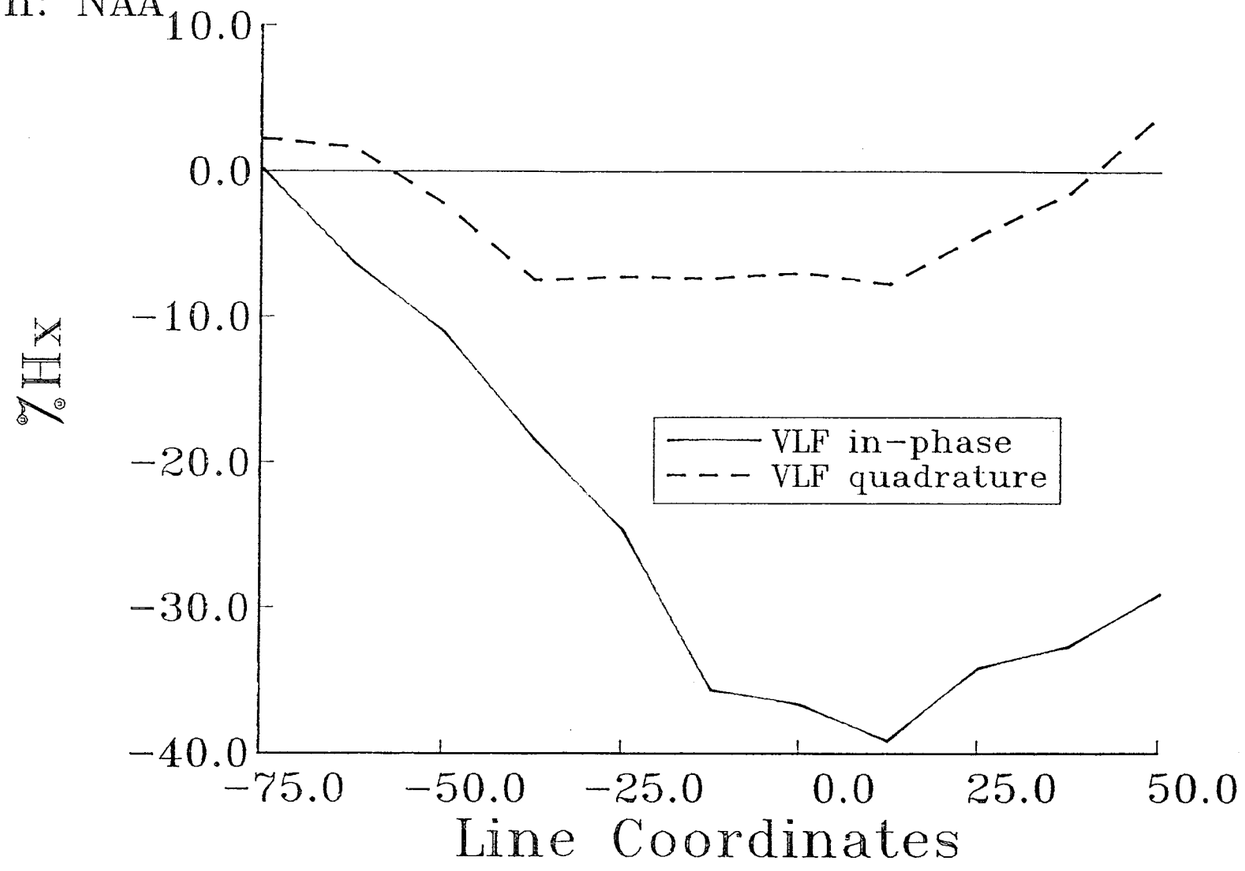
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 300N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:2000(A)
AMEROK GEOPHYSICS	

Line: 325.0

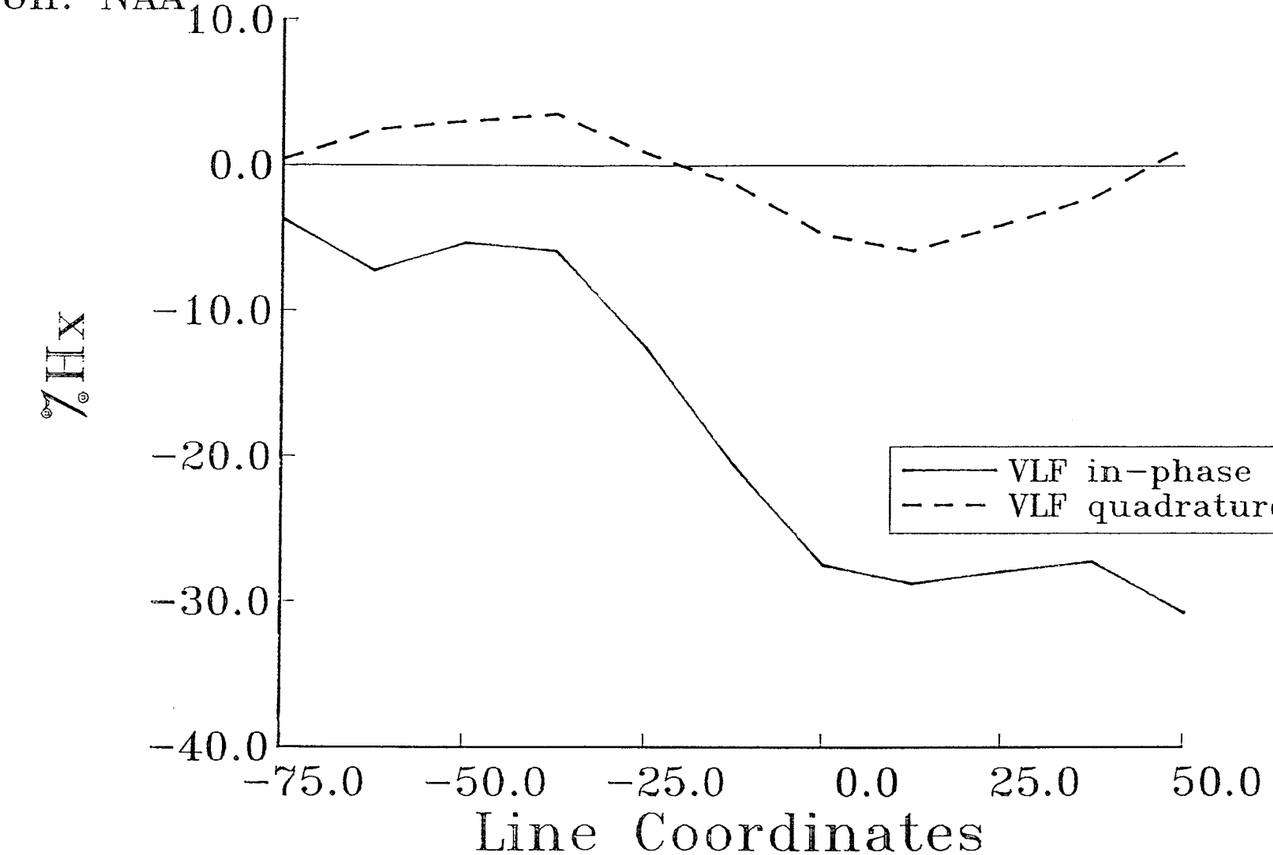
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 325N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 350.0

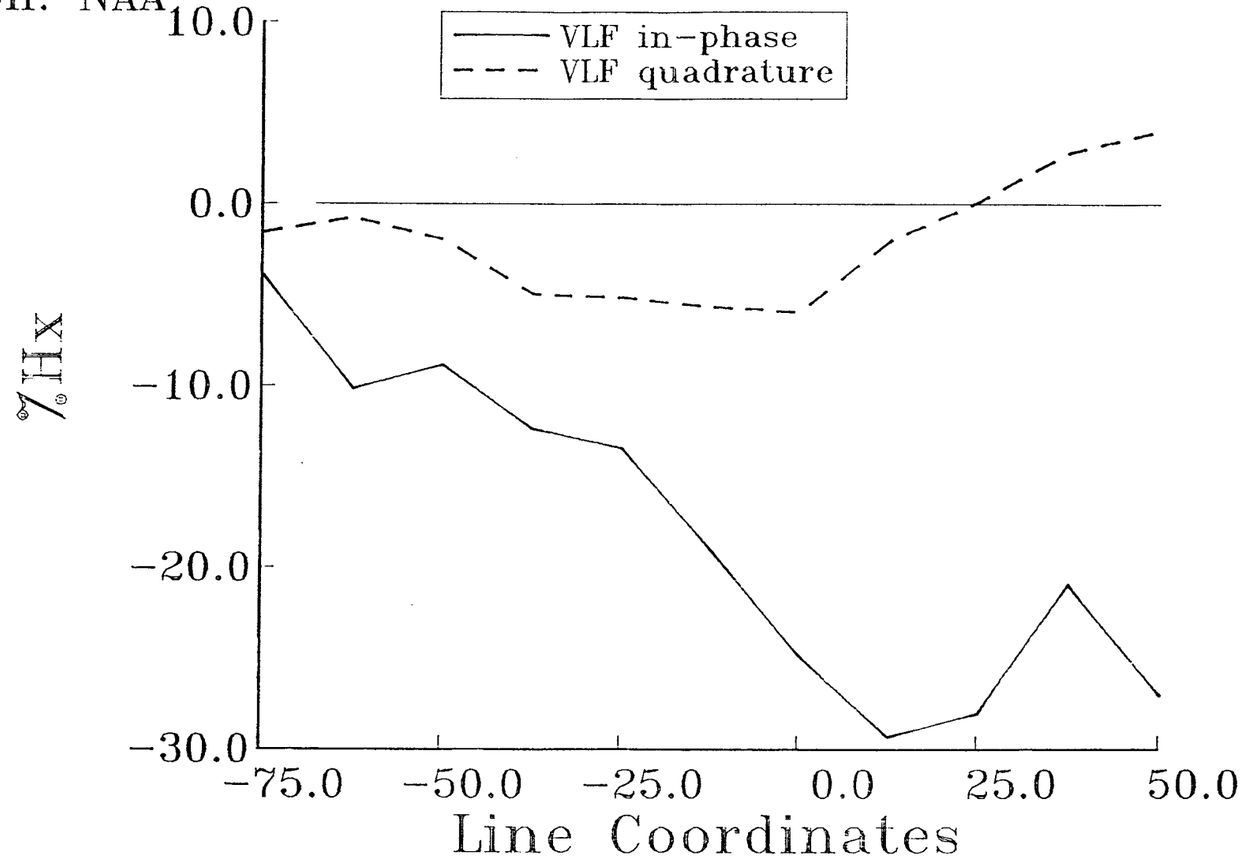
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 350N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 375.0

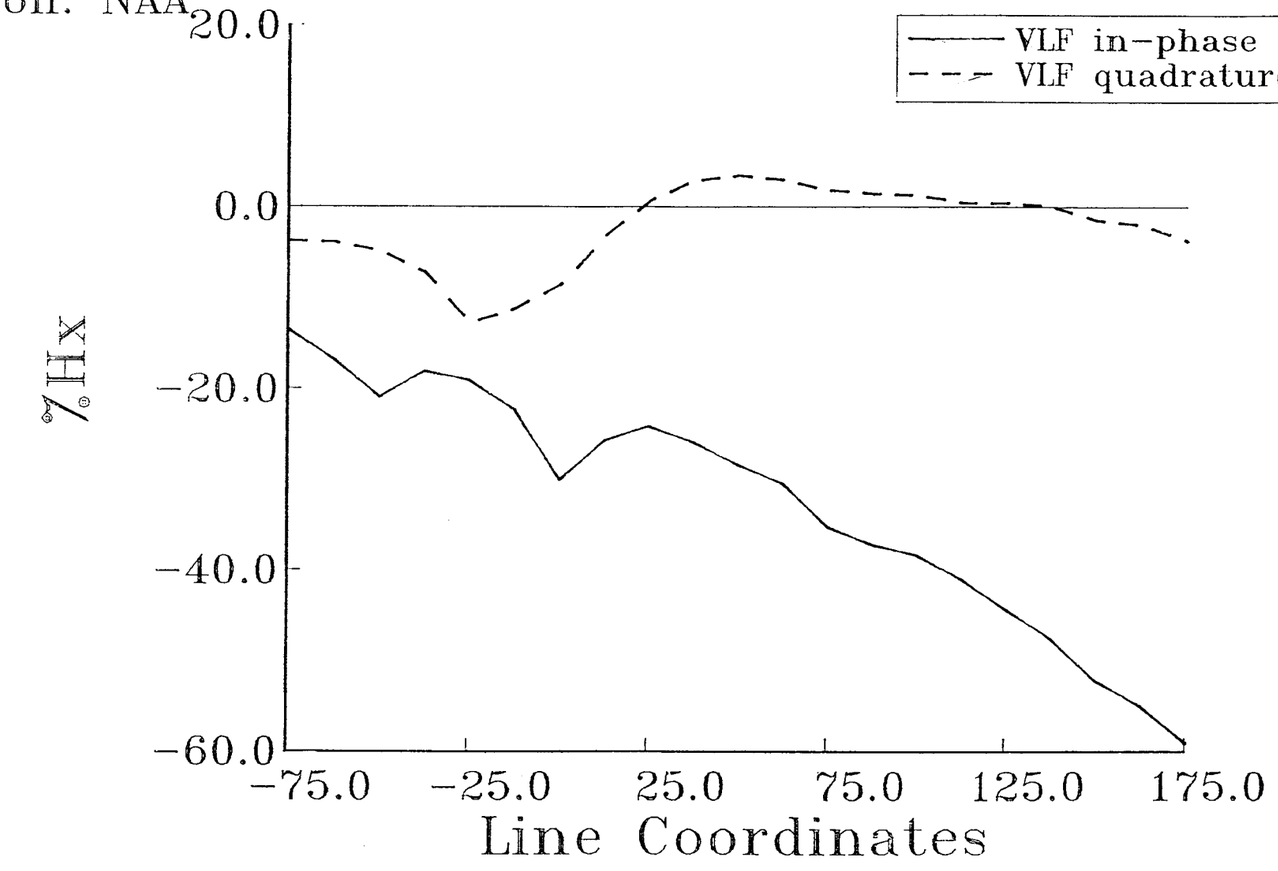
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 375N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

Line: 400.0

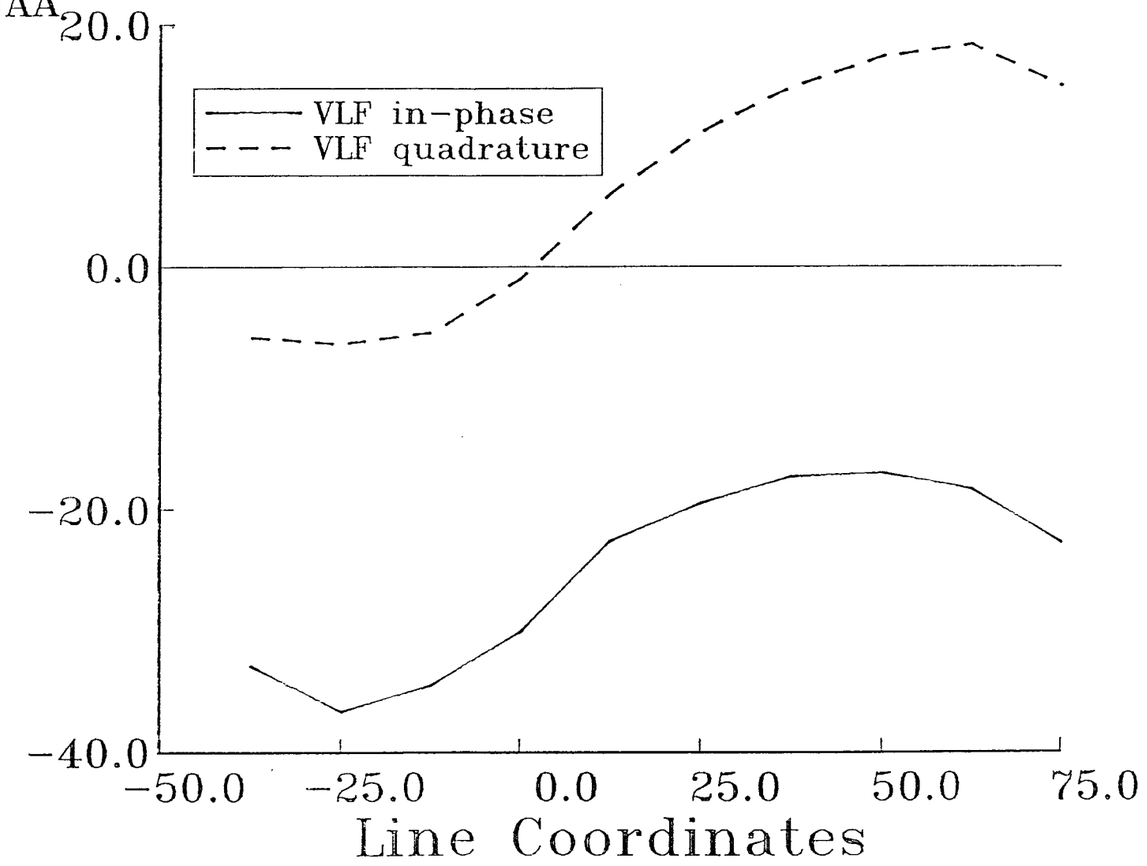
Station: NAA



CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 400N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:2000(A)
AMEROK GEOPHYSICS	

Line: 500.0

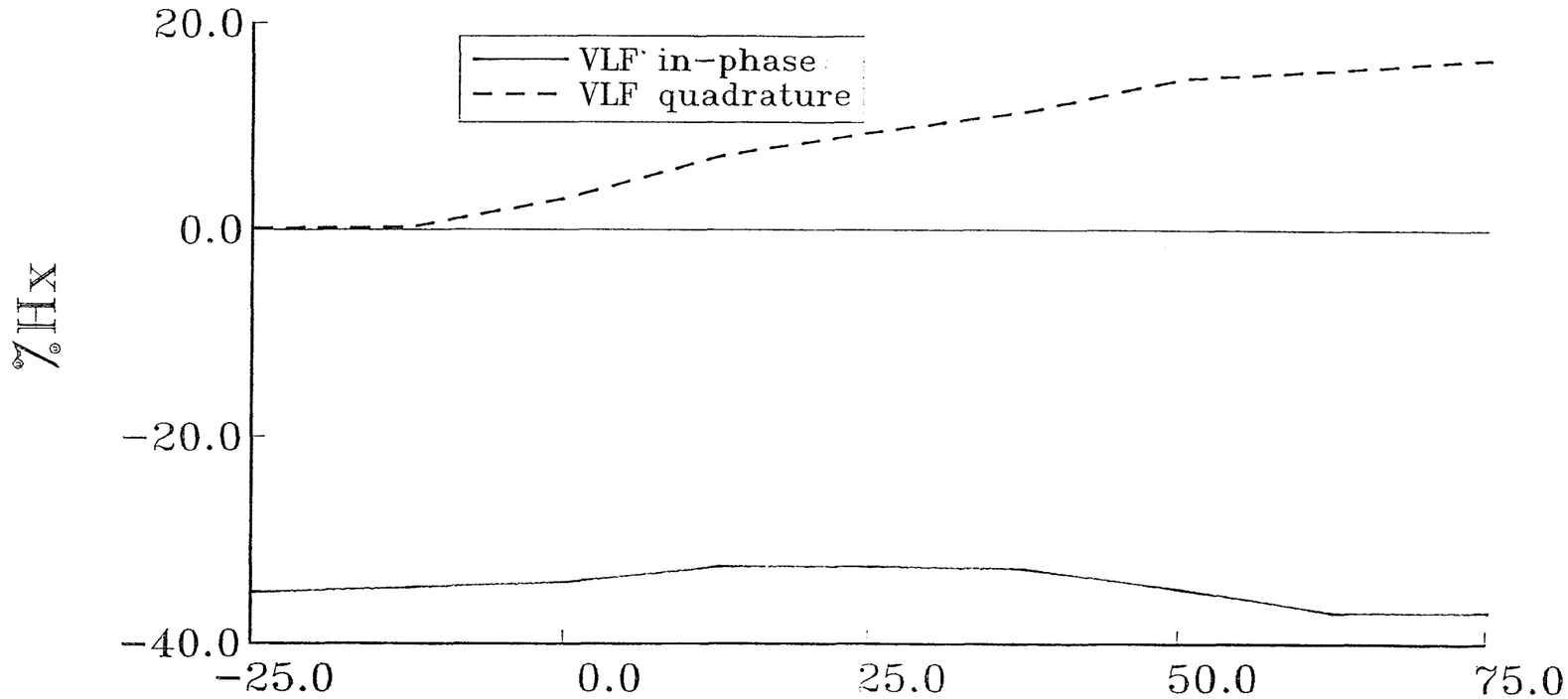
Station: NAA



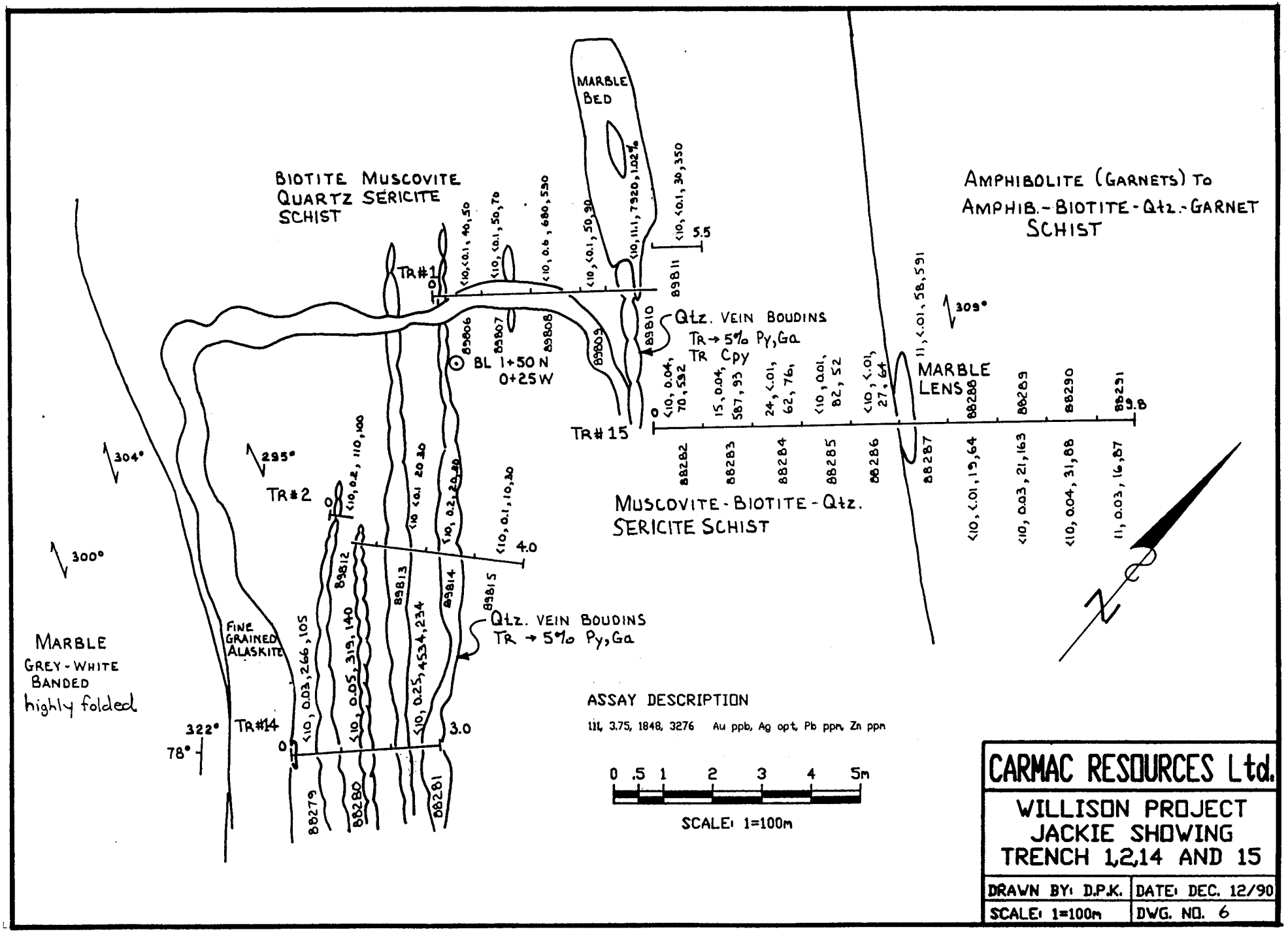
CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 500N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:1000(A)
AMEROK GEOPHYSICS	

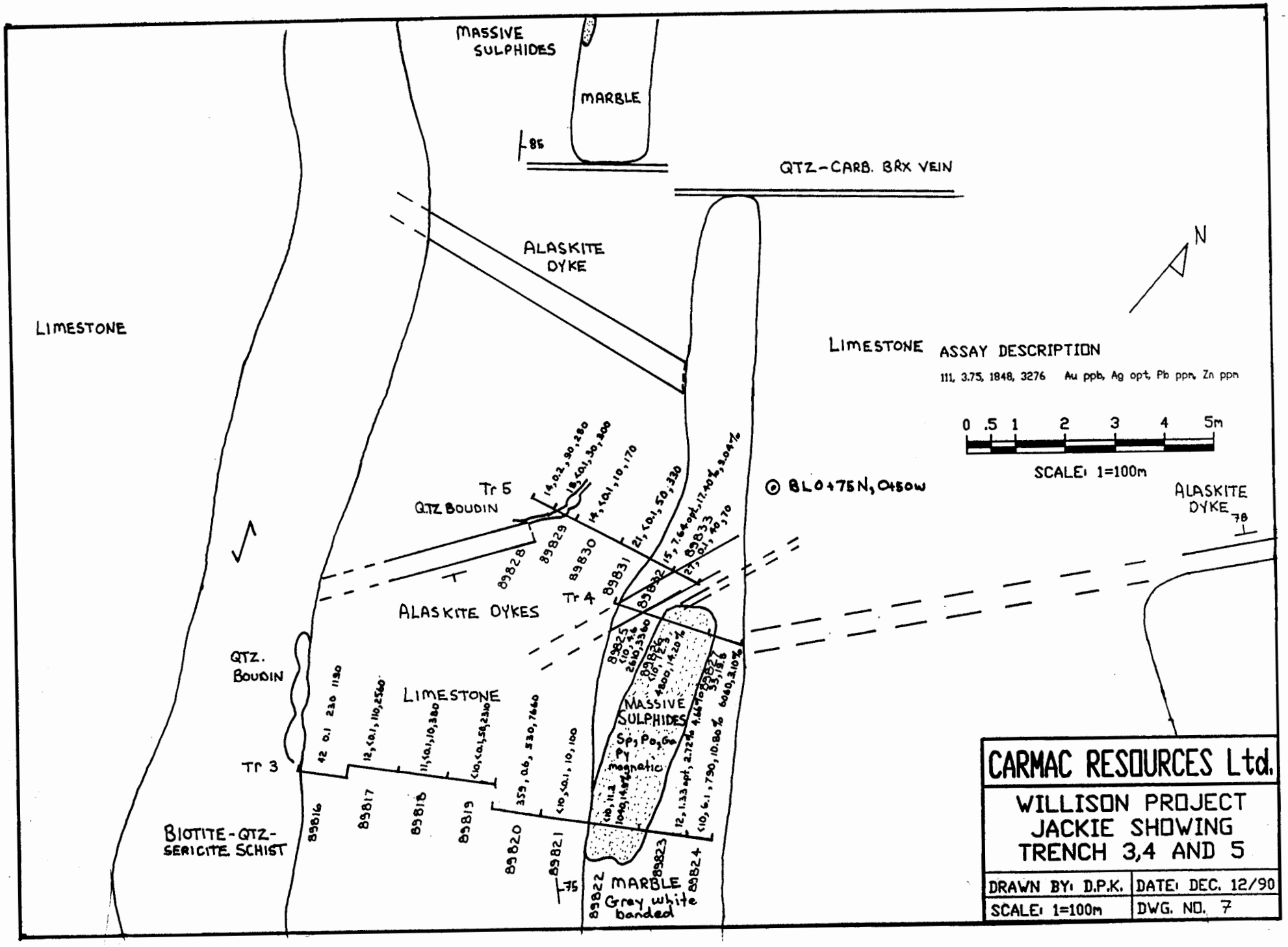
Line: 600.0

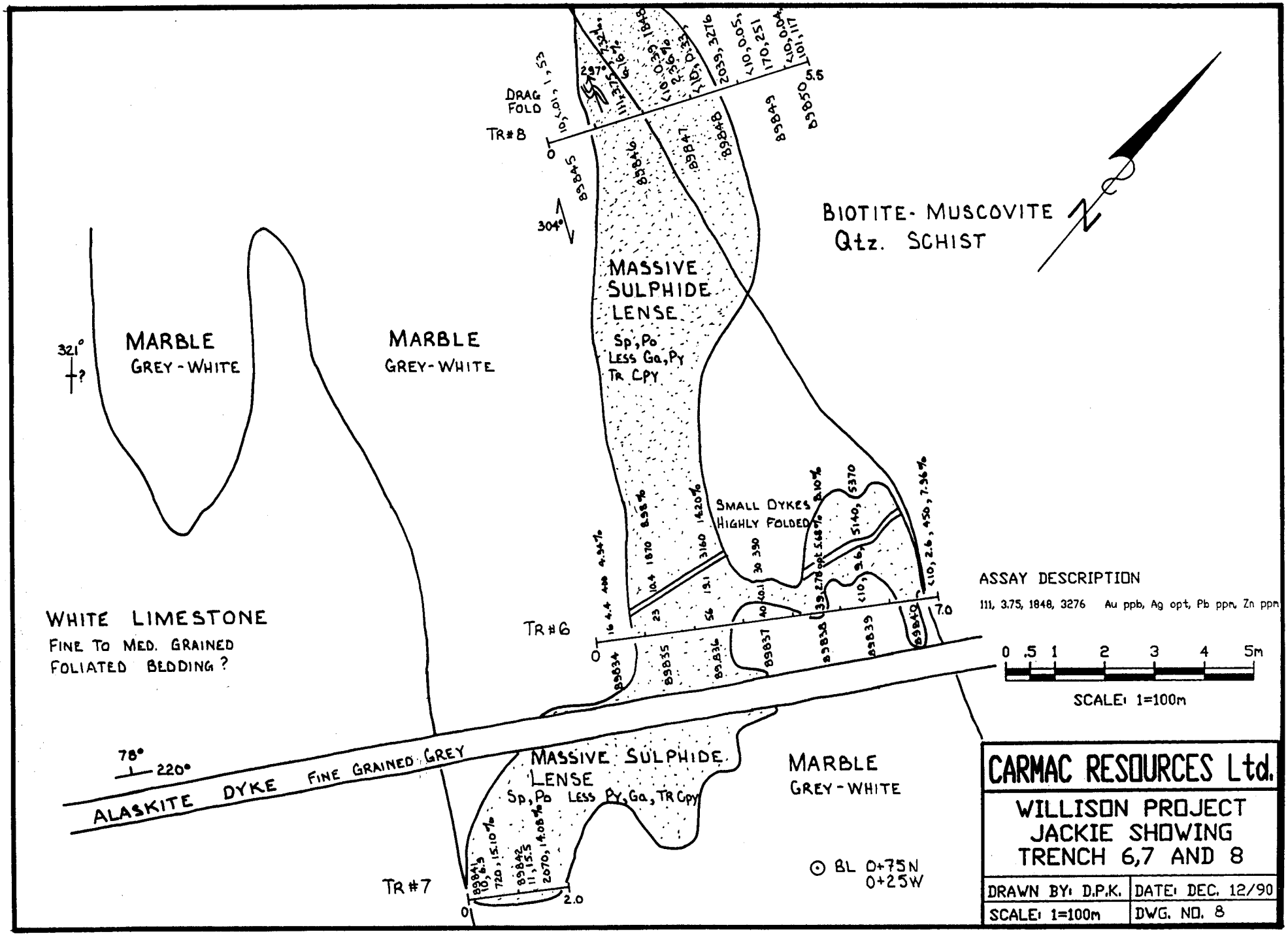
Station: NAA

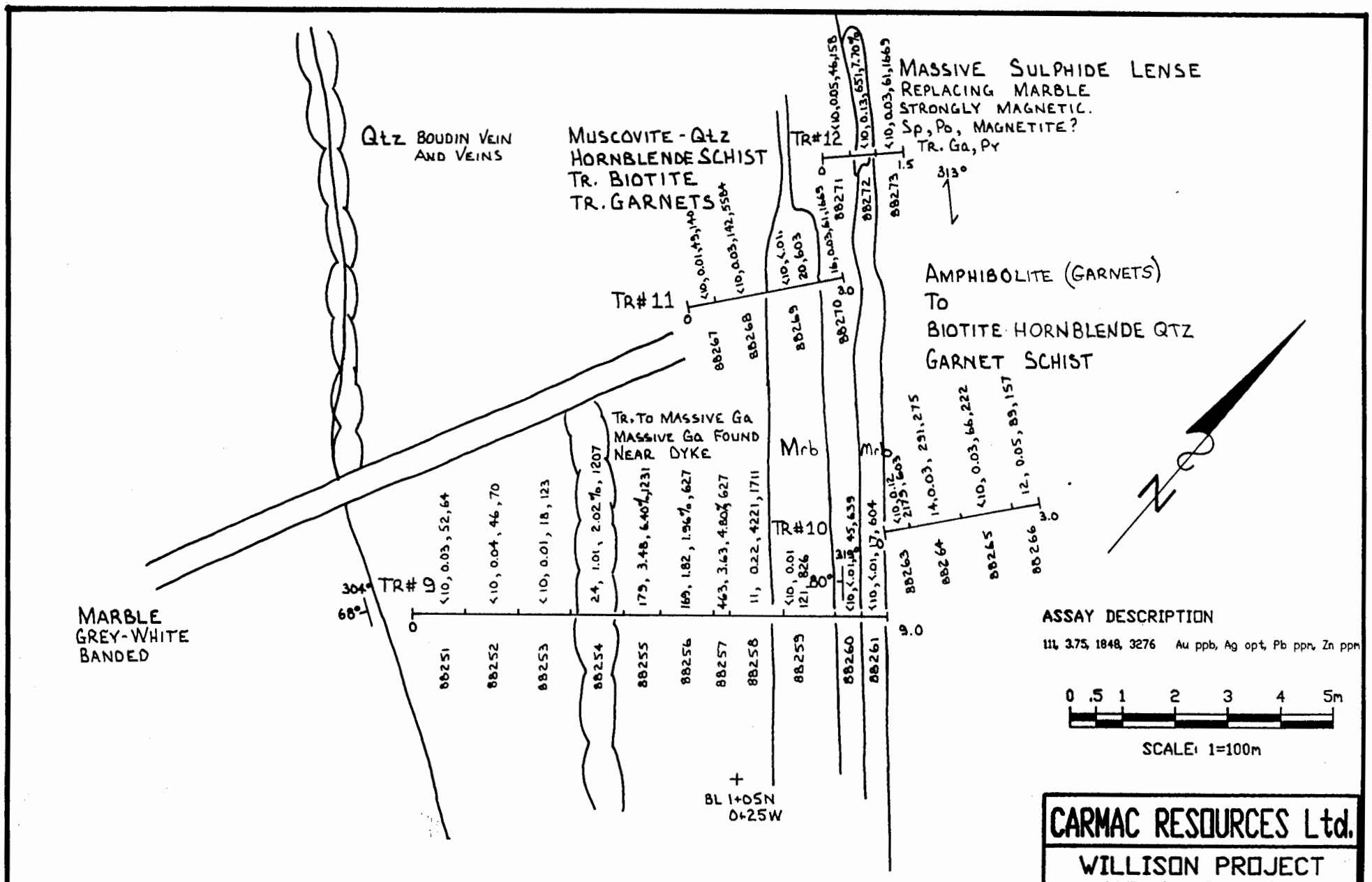


CARMAC RESOURCES LTD.	
WILLISON CREEK PROJECT Jackie Grid Line 600N VLF Profile (Cutler Transmitter)	
Date: 09/15/90	Scale: 1:500(A)
AMEROK GEOPHYSICS	


BIOTITE MUSCOVITE QUARTZ SERICITE SCHIST
MARBLE BED
AMPHIBOLITE (GARNETS) TO AMPHIB.-BIOTITE-Qtz.-GARNET SCHIST
TR#1
TR#15
TR#2
TR#14
BL 1+50 N 0+25 W
Qtz. VEIN BOUDINS TR→5% Py,Ga TR Cpy
MARBLE LENS
MUSCOVITE-BIOTITE-Qtz. SERICITE SCHIST
Qtz. VEIN BOUDINS TR→5% Py,Ga
MARBLE GREY-WHITE BANDED highly folded
FINE GRAINED ALASKITE
304°
295°
300°
322°
78°
309°
ASSAY DESCRIPTION
111, 3.75, 1848, 3276 Au ppb, Ag opt, Pb ppm, Zn ppm
0 .5 1 2 3 4 5m
SCALE: 1=100m
CARMAC RESOURCES Ltd.
WILLISON PROJECT
JACKIE SHOWING
TRENCH 1,2,14 AND 15
DRAWN BY: D.P.K.
DATE: DEC. 12/90
SCALE: 1=100m
DWG. NO. 6


MASSIVE SULPHIDES
MARBLE
85
QTZ-CARB. BRX VEIN
ALASKITE DYKE
LIMESTONE
LIMESTONE
ASSAY DESCRIPTION
111, 3.75, 1848, 3276 Au ppb, Ag opt, Pb ppm, Zn ppm
N
0 .5 1 2 3 4 5m
SCALE: 1=100m
Tr 5
QTZ BOUDIN
14, 0.2, 80, 280
18, <0.1, 30, 300
14, <0.1, 10, 170
21, <0.1, 50, 330
15, 7.64 opt, 17.40%, 3.04%
27, 0.1, 40, 70
89828
89829
89830
89831
89832
89833
BL 0+75N, 0+50W
ALASKITE DYKE
78
Tr 4
ALASKITE DYKES
QTZ. BOUDIN
LIMESTONE
89825
89826
89827
MASSIVE SULPHIDES
Sp, Po, Gn
Py
magnetic
Tr 3
42 0.1 230 1130
12, <0.1, 110, 2560
11, <0.1, 10, 380
<10, <0.1, 58, 2310
359, 0.6, 530, 7660
<10, <0.1, 10, 100
12, 1.33 opt, 2.72%, 4.68%
<10, 6.1, 790, 10.80%
89816
89817
89818
89819
89820
89821
89822
89823
89824
BIOTITE-QTZ-SERICITE SCHIST
75
MARBLE
Grey white banded
CARMAC RESOURCES Ltd.
WILLISON PROJECT
JACKIE SHOWING
TRENCH 3,4 AND 5
DRAWN BY: D.P.K.
DATE: DEC. 12/90
SCALE: 1=100m
DWG. NO. 7

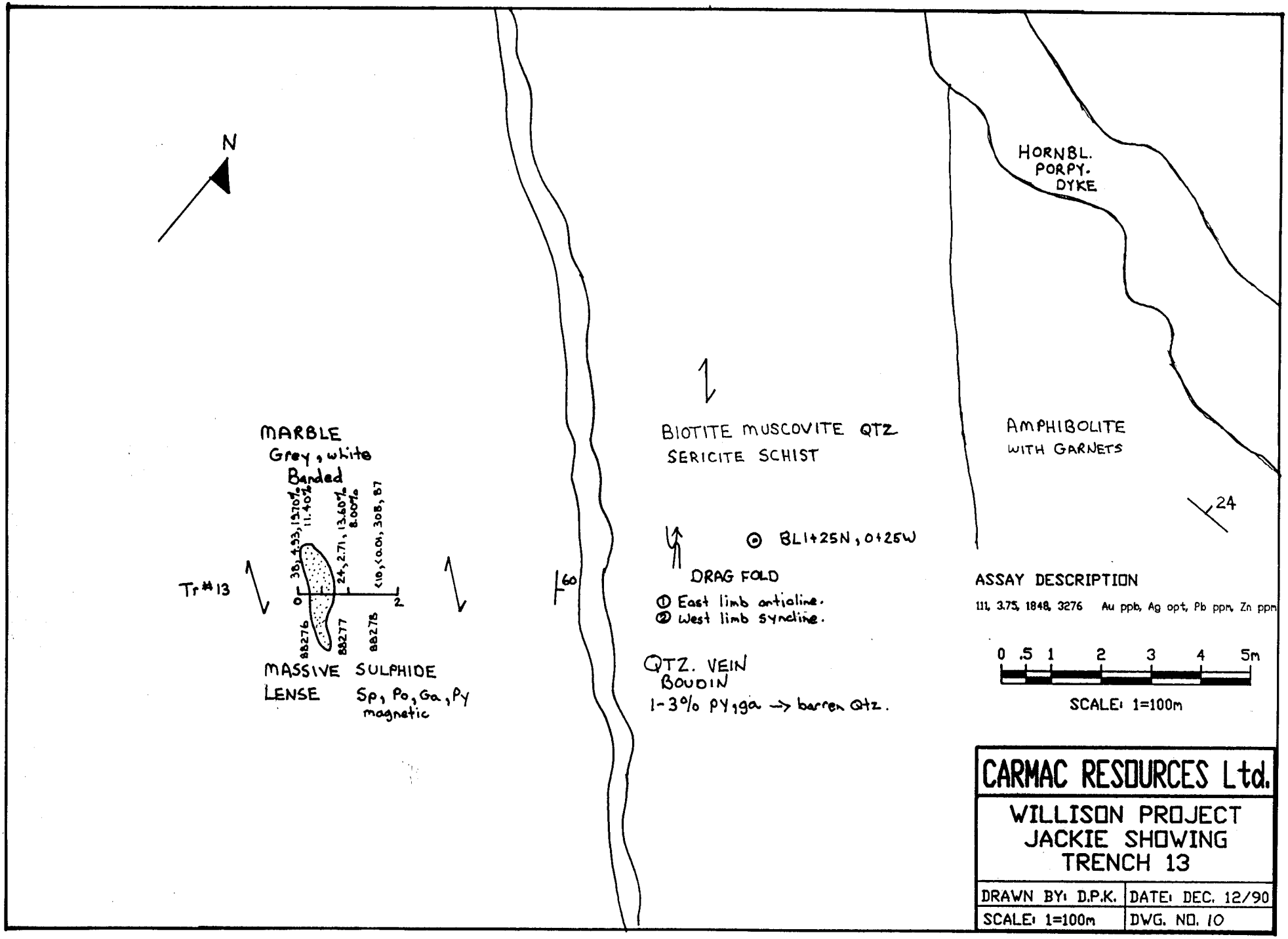

DRAG FOLD
TR#8
TR#6
TR#7
MARBLE
GREY-WHITE
MARBLE
GREY-WHITE
MASSIVE SULPHIDE LENSE
Sp, Po
LESS Ga, Py
TR CPY
BIOTITE-MUSCOVITE
Qtz. SCHIST
SMALL DYKES
HIGHLY FOLDED
WHITE LIMESTONE
FINE TO MED. GRAINED
FOLIATED BEDDING?
ALASKITE DYKE FINE GRAINED GREY
MASSIVE SULPHIDE LENSE
Sp, Po LESS Py, Ga, TR Cpy
MARBLE
GREY-WHITE
321°
78°
220°
304°
297°
ASSAY DESCRIPTION
111, 3.75, 1848, 3276 Au ppb, Ag opt, Pb ppm, Zn ppm
0 .5 1 2 3 4 5m
SCALE: 1=100m
⊙ BL 0+75N
0+25W
CARMAC RESOURCES Ltd.
WILLISON PROJECT
JACKIE SHOWING
TRENCH 6,7 AND 8
DRAWN BY: D.P.K.
DATE: DEC. 12/90
SCALE: 1=100m
DWG. NO. 8



CARMAC RESOURCES Ltd.

WILLISON PROJECT
JACKIE SHOWING
TRENCH 9,10,11 AND 12

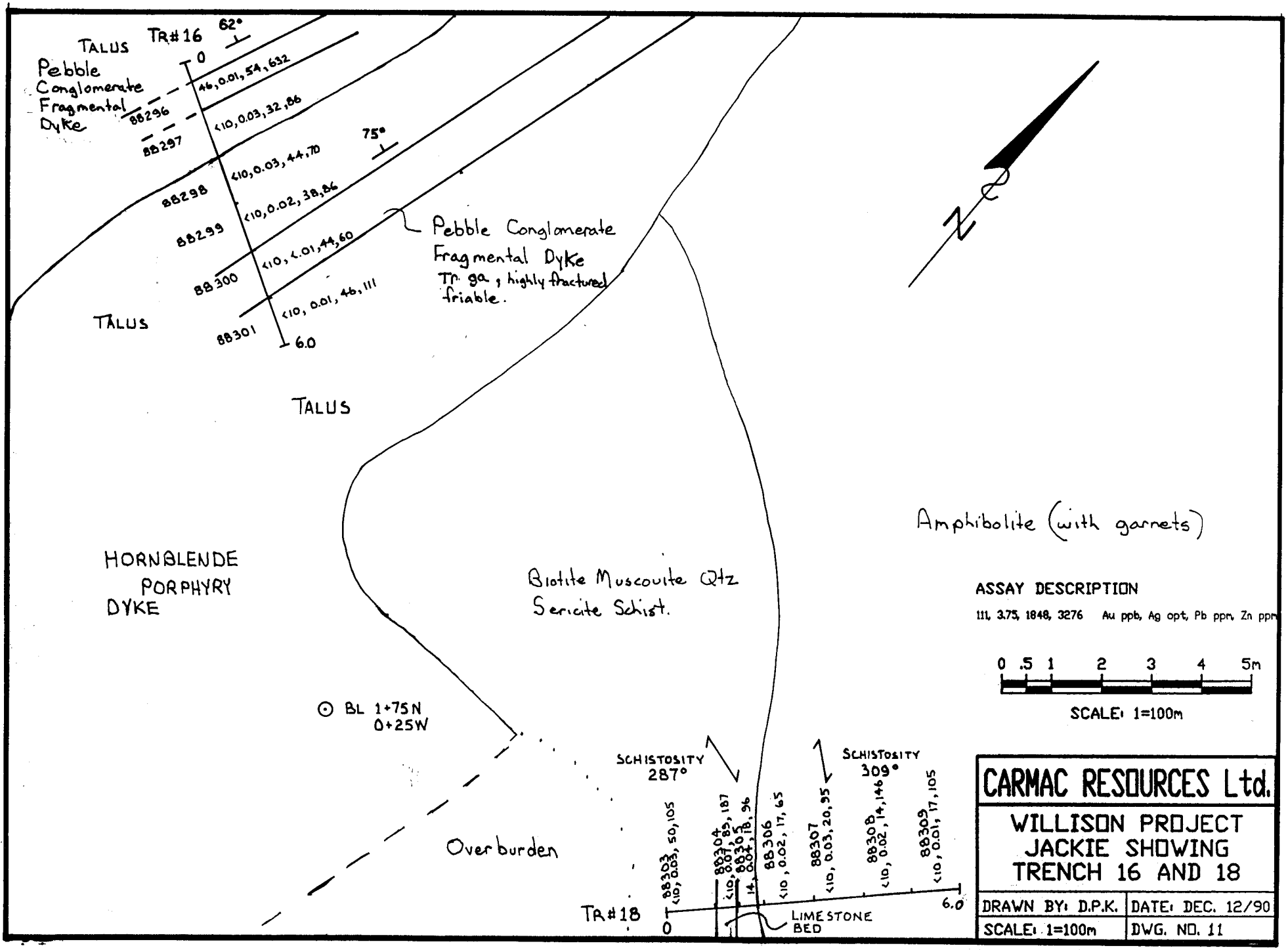
DRAWN BY: D.P.K.	DATE: DEC. 12/90
SCALE: 1=100m	DWG. NO. 9

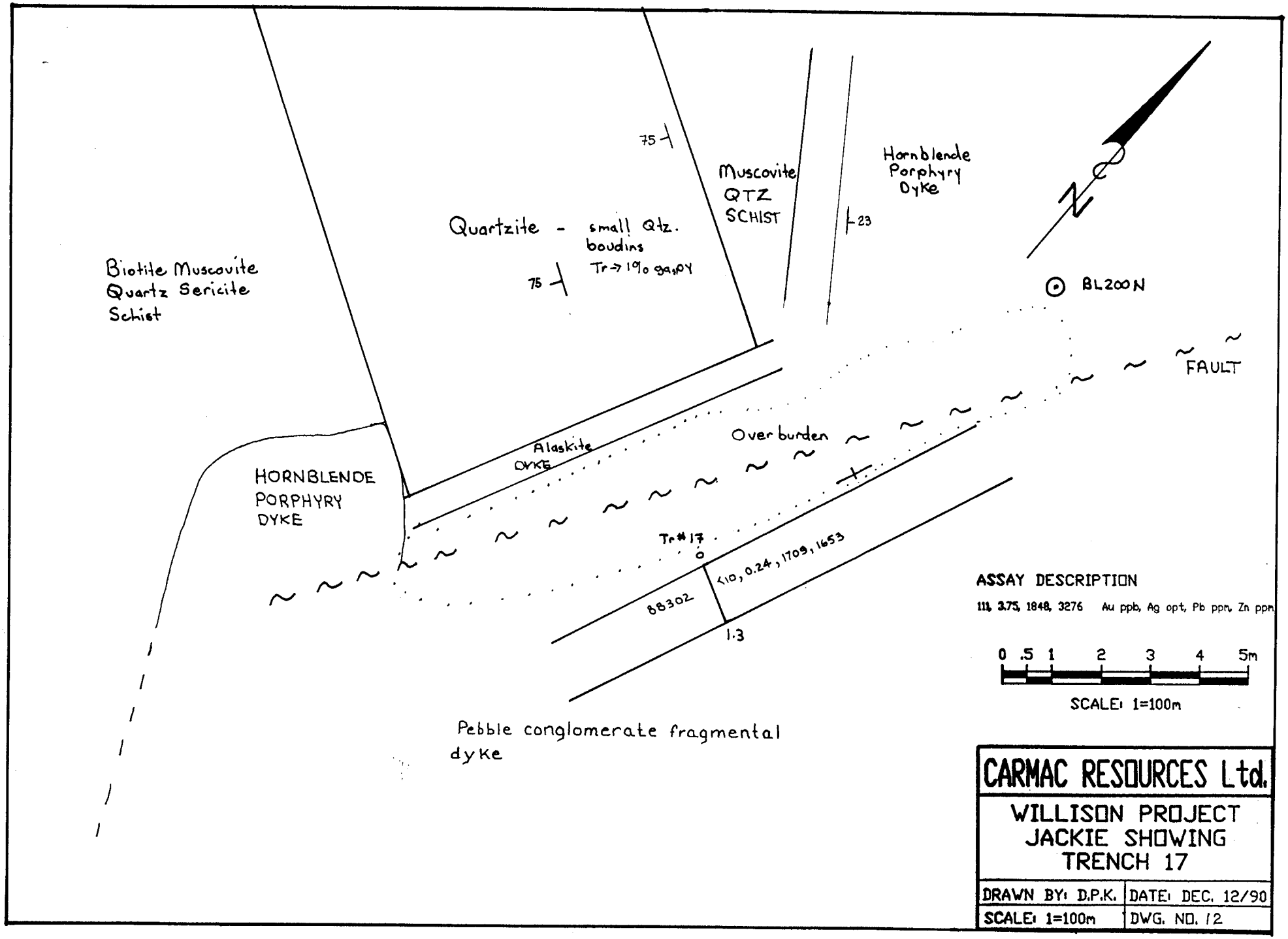


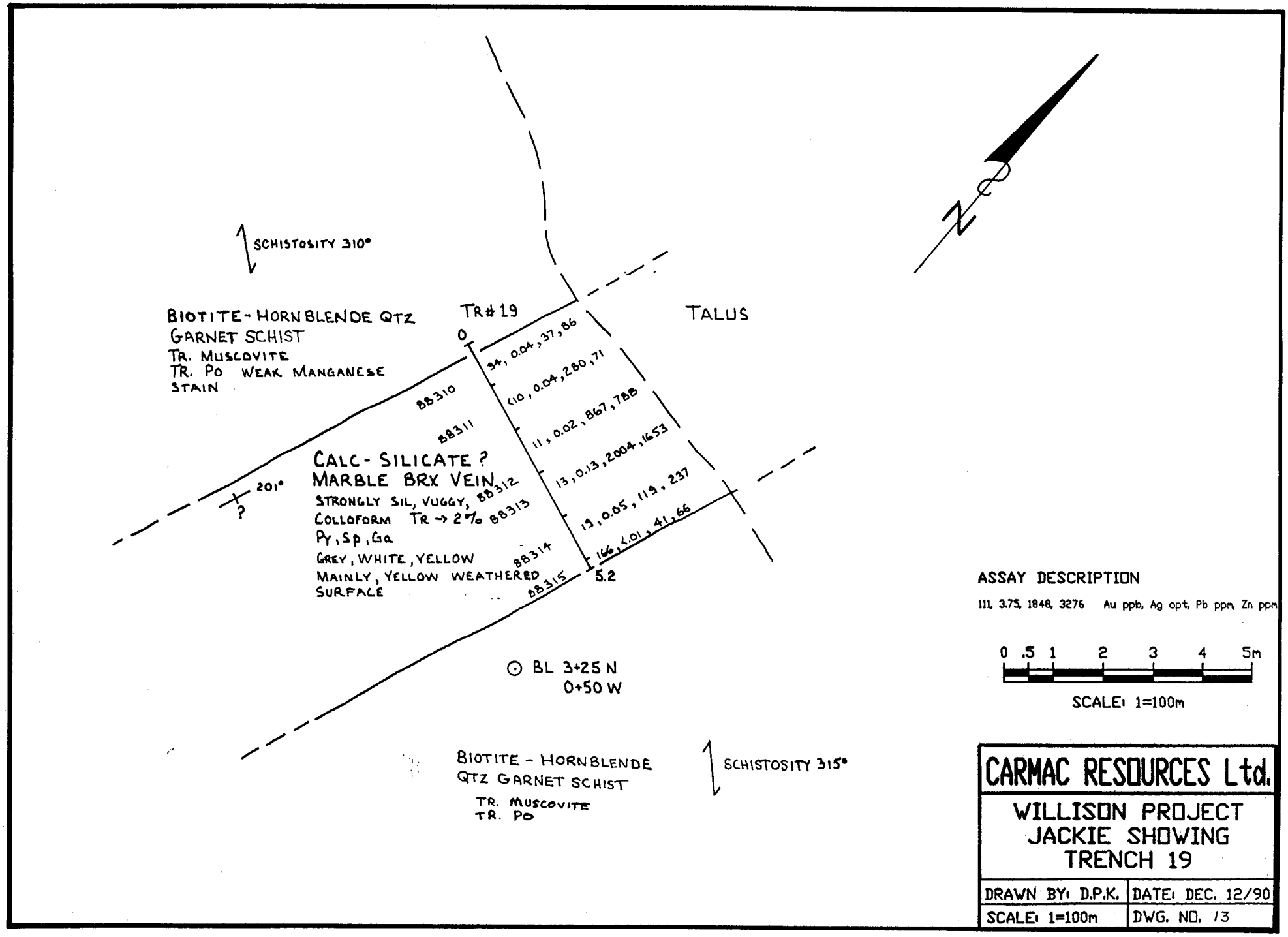
CARMAC RESOURCES Ltd.

WILLISON PROJECT
JACKIE SHOWING
TRENCH 13

DRAWN BY: D.P.K.	DATE: DEC. 12/90
SCALE: 1=100m	DWG. NO. 10


TALUS
TR#16
62°
0
Pebble Conglomerate Fragmental Dyke
88296
88297
88298
88299
88300
88301
46, 0.01, 54, 632
<10, 0.03, 32, 86
<10, 0.03, 44, 70
<10, 0.02, 38, 86
<10, <.01, 44, 60
<10, 0.01, 46, 111
75°
6.0
Pebble Conglomerate Fragmental Dyke
Tr. ga, highly fractured friable.
TALUS
TALUS
HORNBLENDE PORPHYRY DYKE
Biotite Muscovite Qtz Sericite Schist.
Amphibolite (with garnets)
N
ASSAY DESCRIPTION
111, 3.75, 1848, 3276 Au ppb, Ag opt, Pb ppm, Zn ppm
0 .5 1 2 3 4 5m
SCALE: 1=100m
BL 1+75N
0+25W
Overburden
SCHISTOSITY 287°
SCHISTOSITY 309°
88303 <10, 0.03, 50, 105
88304 <10, 0.01, 85, 187
88305 14, 0.04, 18, 96
88306 <10, 0.02, 17, 65
88307 <10, 0.03, 20, 95
88308 <10, 0.02, 14, 146
88309 <10, 0.01, 17, 105
TR#18
0
6.0
LIMESTONE BED
CARMAC RESOURCES Ltd.
WILLISON PROJECT
JACKIE SHOWING
TRENCH 16 AND 18
DRAWN BY: D.P.K.
DATE: DEC. 12/90
SCALE: 1=100m
DWG. NO. 11

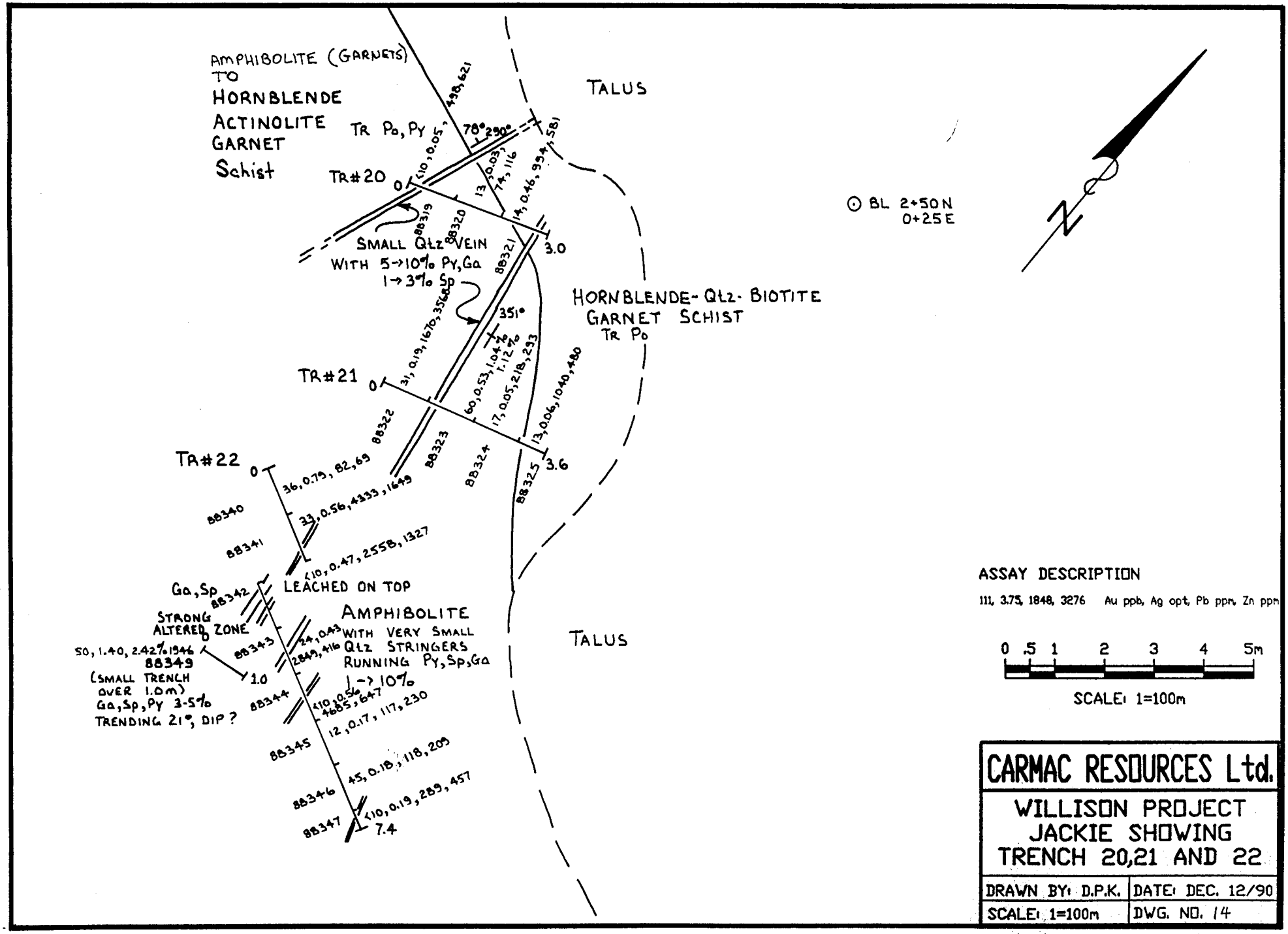

75
Muscovite QTZ SCHIST
Hornblende Porphyry Dyke
23
Quartzite - small Qtz. boudins
Tr → 1% galPY
75
Biotite Muscovite Quartz Sericite Schist
BL200N
FAULT
Alaskite DYKE
Overburden
HORNBLENDE PORPHYRY DYKE
Tr#17
<10, 0.24, 1709, 1653
88302
1.3
Pebble conglomerate fragmental dyke
ASSAY DESCRIPTION
111, 3.75, 1848, 3276 Au ppb, Ag opt, Pb ppm, Zn ppm
0 .5 1 2 3 4 5m
SCALE: 1=100m
CARMAC RESOURCES Ltd.
WILLISON PROJECT
JACKIE SHOWING
TRENCH 17
DRAWN BY: D.P.K.
DATE: DEC. 12/90
SCALE: 1=100m
DWG. NO. 12



CARMAC RESOURCES Ltd.

WILLISON PROJECT
JACKIE SHOWING
TRENCH 19

DRAWN BY: D.P.K.	DATE: DEC. 12/90
SCALE: 1=100m	DWG. NO. 13



ASSAY DESCRIPTION

111, 3.75, 1848, 3276 Au ppb, Ag opt, Pb ppm, Zn ppm

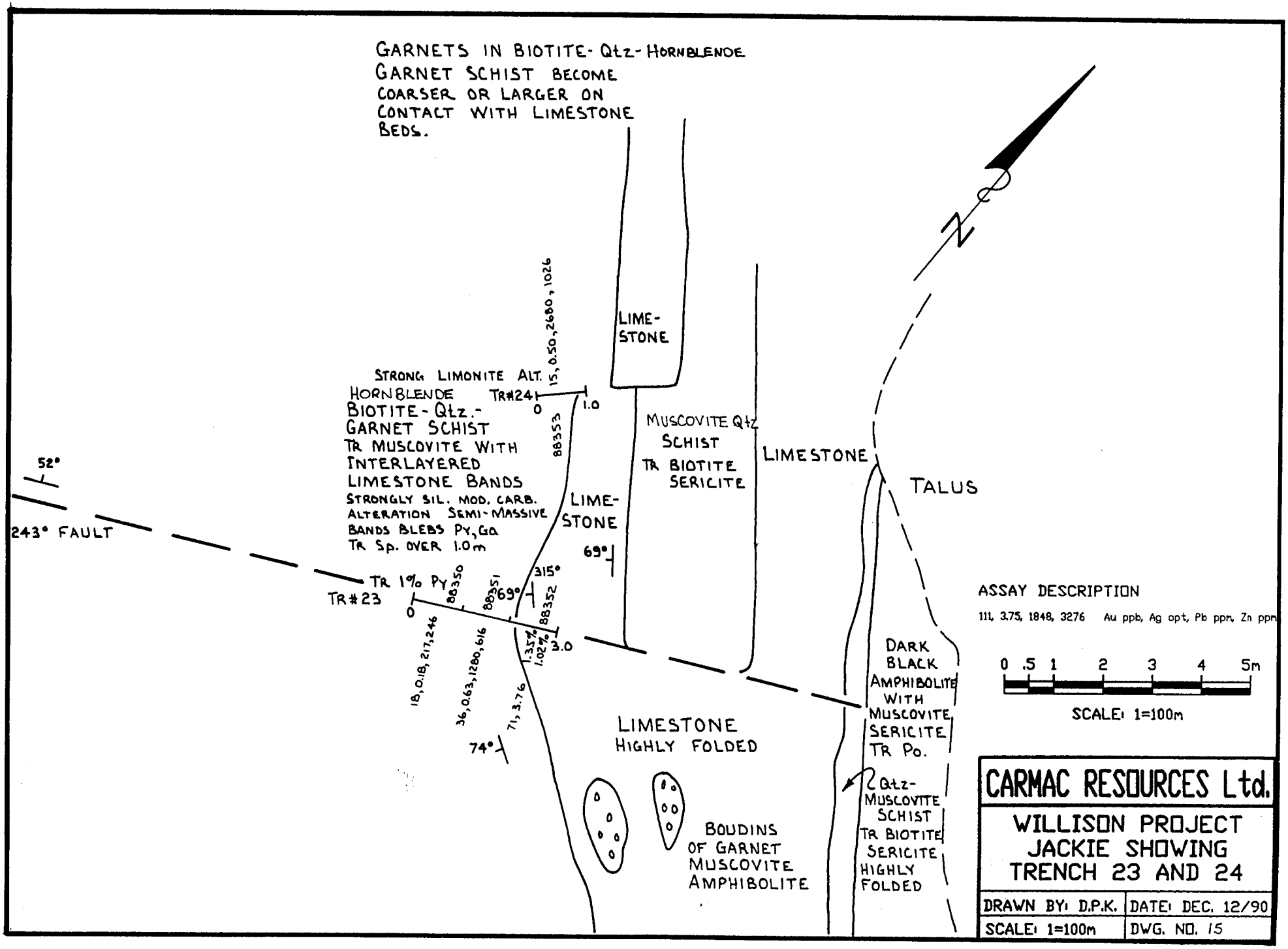
0 .5 1 2 3 4 5m

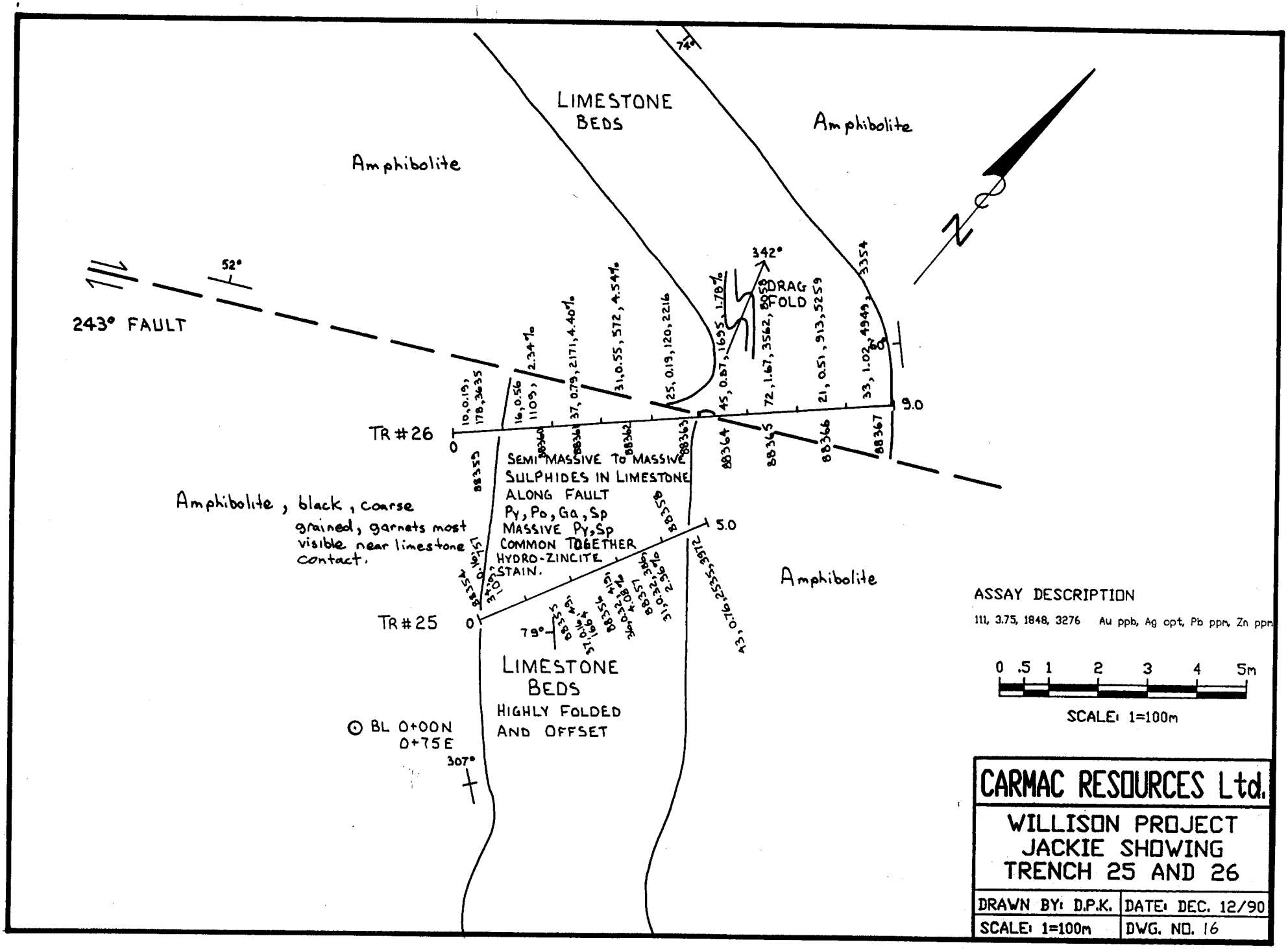
SCALE: 1=100m

CARMAC RESOURCES Ltd.

WILLISON PROJECT
JACKIE SHOWING
TRENCH 20,21 AND 22

DRAWN BY: D.P.K.	DATE: DEC. 12/90
SCALE: 1=100m	DWG. NO. 14

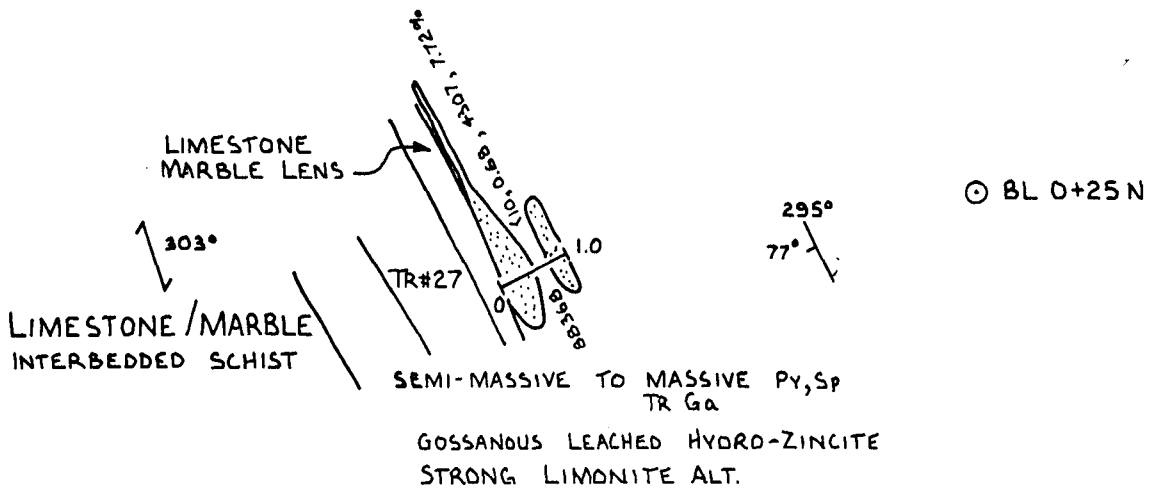

GARNETS IN BIOTITE-Qtz-HORNBLENDE GARNET SCHIST BECOME COARSER OR LARGER ON CONTACT WITH LIMESTONE BEDS.
N
LIME-STONE
STRONG LIMONITE ALT.
HORNBLENDE BIOTITE-Qtz.-GARNET SCHIST TR MUSCOVITE WITH INTERLAYERED LIMESTONE BANDS STRONGLY SIL. MOD. CARB. ALTERATION SEMI-MASSIVE BANDS BLEBS Py, Gn TR Sp. OVER 1.0m
TR#24
0
1.0
15, 0.50, 2680, 1026
88353
MUSCOVITE Qtz SCHIST TR BIOTITE SERICITE
LIMESTONE
TALUS
52°
243° FAULT
LIME-STONE
69°
TR 1% Py
TR#23
0
88350
88351
69°
315°
88352
3.0
1.35%
1.02%
18, 0.18, 217, 246
36, 0.63, 1280, 616
71, 3.76
74°
LIMESTONE HIGHLY FOLDED
BOUDINS OF GARNET MUSCOVITE AMPHIBOLITE
DARK BLACK AMPHIBOLITE WITH MUSCOVITE SERICITE TR Po.
Qtz-MUSCOVITE SCHIST TR BIOTITE SERICITE HIGHLY FOLDED
ASSAY DESCRIPTION
111, 3.75, 1848, 3276 Au ppb, Ag opt, Pb ppm, Zn ppm
0 .5 1 2 3 4 5m
SCALE: 1=100m
CARMAC RESOURCES Ltd.
WILLISON PROJECT
JACKIE SHOWING
TRENCH 23 AND 24
DRAWN BY: D.P.K.
DATE: DEC. 12/90
SCALE: 1=100m
DWG. NO. 15

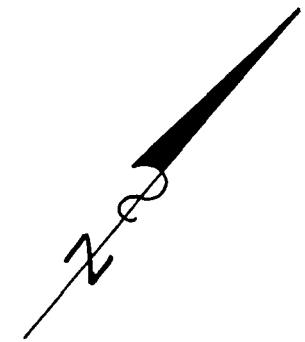


CARMAC RESOURCES Ltd.

WILLISON PROJECT
JACKIE SHOWING
TRENCH 25 AND 26

DRAWN BY: D.P.K.	DATE: DEC. 12/90
SCALE: 1=100m	DWG. NO. 16





⊙ BL 0+25 N

ASSAY DESCRIPTION

111, 3.75, 1848, 3276 Au ppb, Ag opt, Pb ppm, Zn ppm

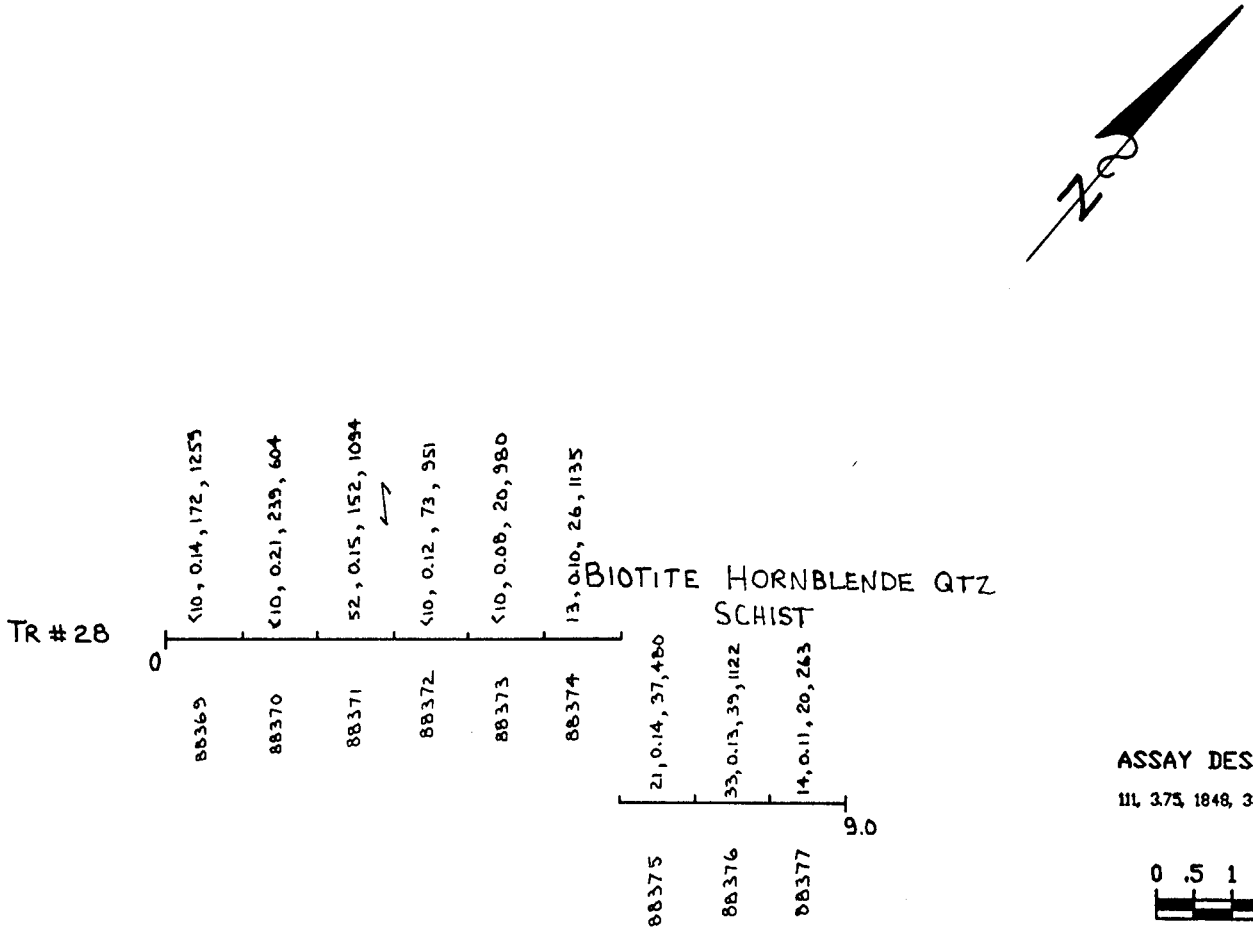
0 .5 1 2 3 4 5m

SCALE: 1=100m

CARMAC RESOURCES Ltd.

WILLISON PROJECT
JACKIE SHOWING
TRENCH 27

DRAWN BY: D.P.K.	DATE: DEC. 12/90
SCALE: 1=100m	DWG. NO. 17



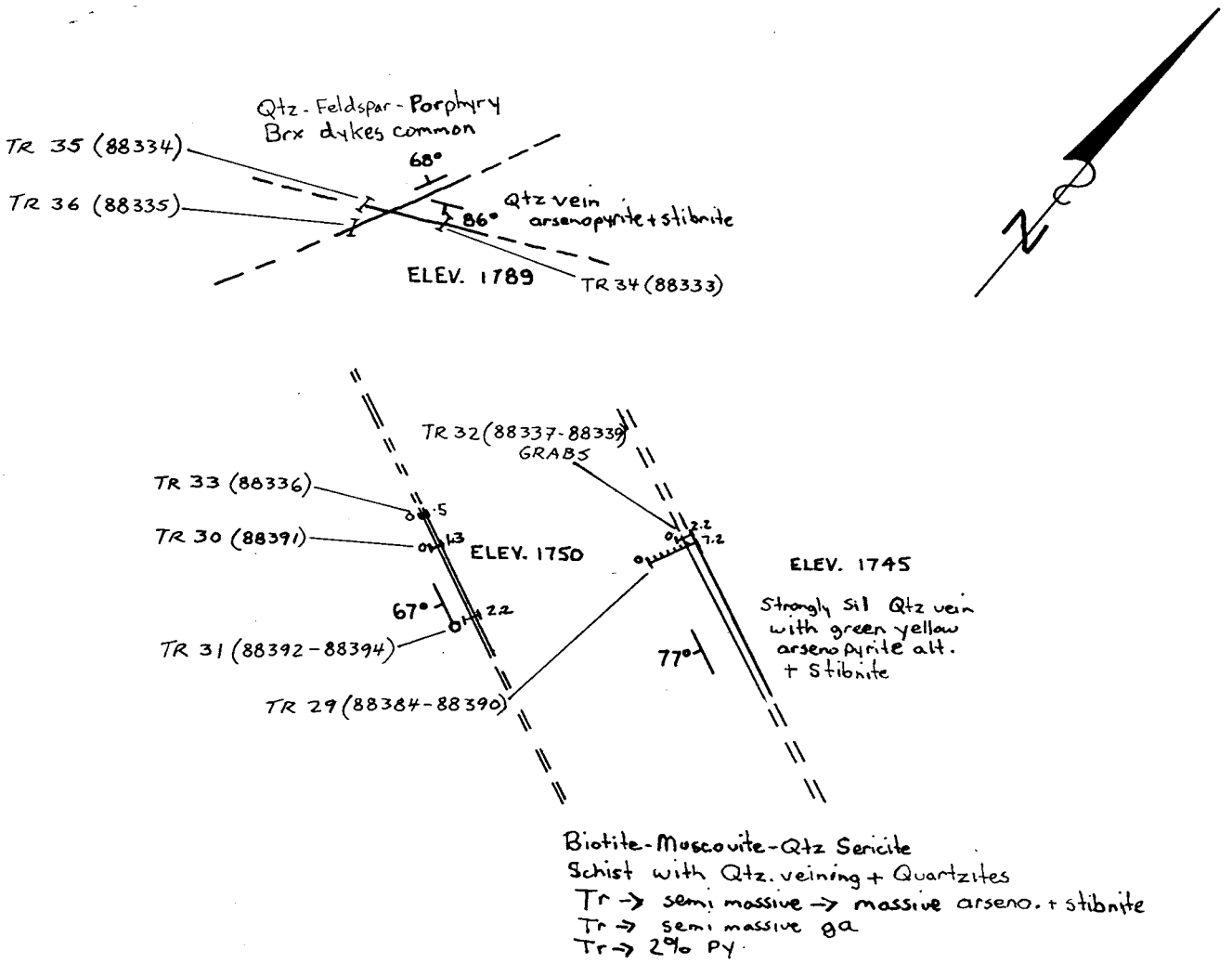
ASSAY DESCRIPTION

111, 3.75, 1848, 3276 Au ppb, Ag opt, Pb ppm, Zn ppm

0 .5 1 2 3 4 5m

SCALE: 1=100m

CARMAC RESOURCES Ltd.	
WILLISON PROJECT JACKIE SHOWING TRENCH 28	
DRAWN BY: D.P.K.	DATE: DEC. 12/90
SCALE: 1=100m	DWG. NO. 18

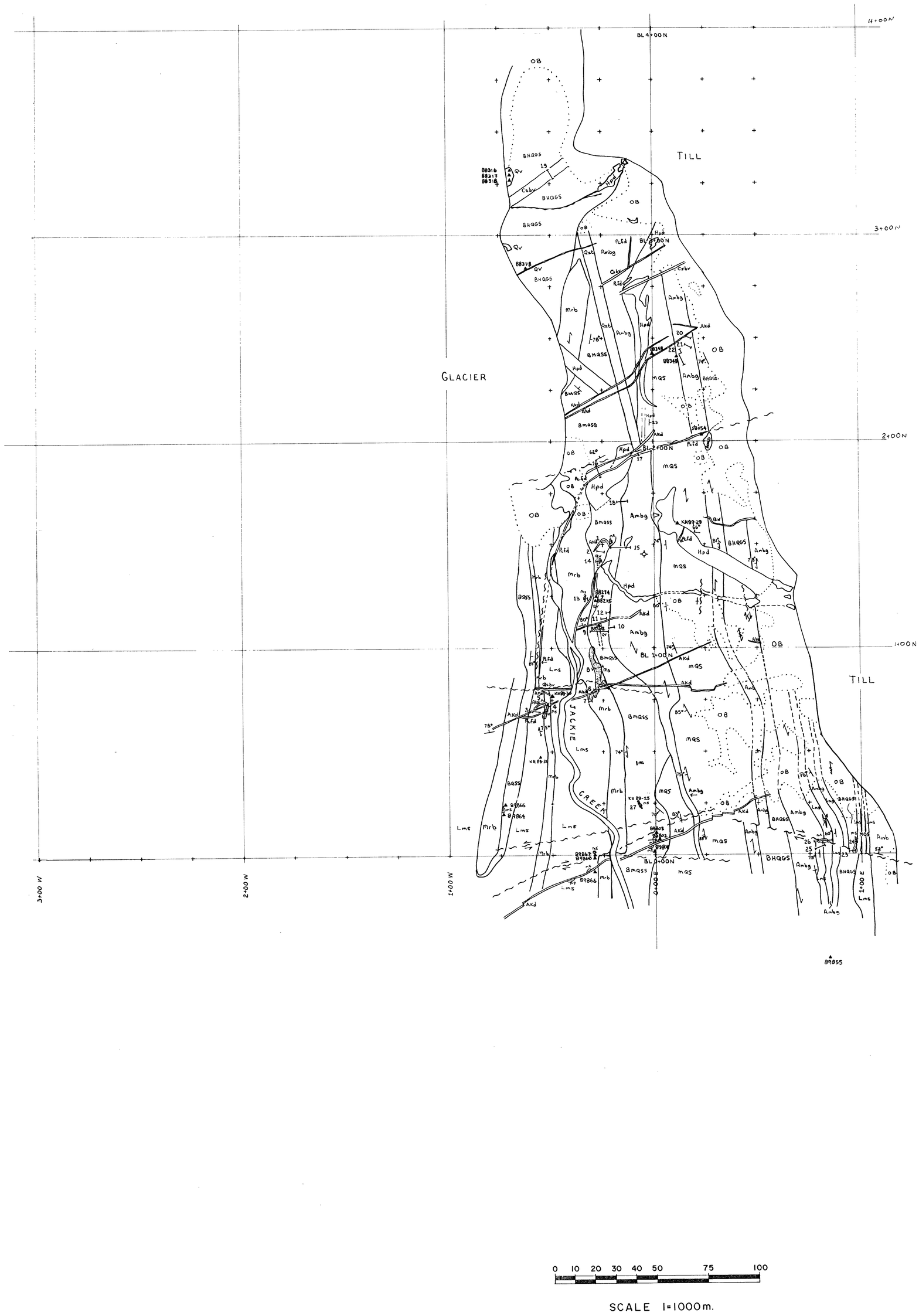


FALCON SHOWING

0 .5 1 2 3 4 5m

SCALE: 1=100m

CARMAC RESOURCES Ltd.	
WILLISON PROJECT FALCON SHOWING TRENCH 29-36	
DRAWN BY: D.P.K.	DATE: DEC. 12/90
SCALE: 1=100m	DWG. NO. 19



LEGEND

ROCK TYPES (JACKIE SHOWING)

Qzt	Quartzite
Lms	Limestone
Mrb	Marble
Mqs	Muscovite-Qtz-Schist
Amb	Amphibolite
Ambg	Amphibolite with garnets
BHQGS	Biotite-Hornblende-Qtz-Garnet Schist
Akd	Alaskite dyke
Hpd	Hornblende porphyry dyke
Pcfd	Pebble conglomerate fragmental dyke
Qv	Quartz vein
Qcbv	Qtz-carbonate-breccia vein
Csbv	Calc-silicate breccia vein
BMQSS	Biotite-Muscovite-Qtz-Sericite Schist
BHQS	Biotite-Hornblende-Qtz-Schist
BQSS	Biotite-Qtz-Sericite-Schist

SYMBOLS

VERTICAL	BEDDING
INCLINED	
INCLINED AT UNKNOWN ANGLE	
INCLINED	
VERTICAL	FOLIATION
	SCHISTOSITY
(OBSERVED)	GEOLOGICAL CONTACT
(INFERRED)	
	FAULT
	FAULT (sense of movement)
SENSE OF DIRECTION PLUNGE HARD TO MEASURE	DRAG FOLDS
	GLACIAL CREEK
	ROCK CAIRN (CLAIM POST)
10	DIAMOND SAW CHIP SAMPLE INTERVAL AND TRENCH NUMBER
OB	OVERBURDEN (OB)
	GRID STATION
▲ 88274	ROCK CHIP LOCATION AND SAMPLE NUMBER
POND	POND
MS	MASSIVE SULPHIDES (MS) Cu , Pb or Zn

ABBREVIATIONS

Brx	Breccia
Qtz	Quartz
TR	Trace
Sp	Sphalerite
Po	Pyrrhotite
Ga	Galena
Py	Pyrite
Carb	Carbonate
Hornbl	Hornblende
Porpy	Porphyry
Sil	Siliceous
Alt	Alteration
Mod	Moderate
Cpy	Chalcopyrite
Elev	Elevation (m)
Arseno	Arsenopyrite
Ab	Antimony

0 10 20 30 40 50 75 100

SCALE 1=1000m.

21162

CARMAC RESOURCES Ltd.

WILLISON PROJECT
JACKIE SHOWING
GEOLOGY AND SAMPLE LOCATIONS

DATE: SEPT. 1, 1990	SCALE: 1=1000m.
DRAWN BY: D.K., B.M.	
N.T.S. 104 M/1	FIGURE No. 20

WILLISON GLACIER

WILLISON CREEK

1800

2046 X

Limestone

NA4262

IF

2115 X

88383
< .001, 0.10, 0.26, < .01, 0.02

Po, Py in
Quartzites and metaseds
Biotite + Muscovite schist
rare limestone lenses

Δ 88382 < .001, 0.09, 0.02, < .01, 0.01
▲ 88381 < .001, 0.10, < .01, < .01, 0.03

88379 < .001, 0.12, < .01, 0.05, 0.03

88380
0.001, 0.14, 0.05, 0.02, 0.13

89869
< .001, 0.07, 0.05, < .01, 0.16

IF

NA4260

ICE FIELD

Limestone

2112 X

1200

IF

IF

IF

NA3858

2219 X

FALCON SHOWING

85855 ▲ 85857 ▲
89843 ▲ < .001

0.004, 142.03, 0.45, 0.69, 1.20
0.001, 0.69, < .01, 0.01, 0.02
0.027, 28.44, 0.03, 1.12, 0.89

88334
0.005, 0.93, < .01, 0.26, 0.08

88335

88336
0.193, 0.48, < .01, 0.12, < .01

89862 0.001, 0.11, 0.016, < .01
88337 0.017, 2.65, < .01, 4.32, 0.14
88338 0.005, 22.25, 0.05, 1.98, 0.52
88339 0.098, 77.04, 0.15, 2.50, 3.32

88397 ▲
0.008, 0.03, 0.08, 0.01, 0.025

NA4058

Metaseds
Quartzites
Schists

0.003, 0.02, < .01 89860
0.001, 0.01, < .01 89861
< .001, 0.03, < .01 88332

X 90W-3
< .001, 0.08, < .01

MOUNT CAPLICE

X 2219

NA4258

1600

89844 Δ
< .001, 0.04, < .01, < .01, 0.02

89804 ▲
< .001, 0.01, < .01, 0.008, 0.012

89863 Δ
0.001, 0.11, 0.016, < .01

89854
0.001, 0.02, < .01

89853
< .001, < .01

88295
< .001, < .01

88294 < .001, 0.06, 0.02, < .01, 0.02

IF

JACKIE SHOWING

89855 ▲
< .001, 6.54, 0.04, 1.25, 3.22

89803
< .001, 0.17, 0.02, 0.10, 0.08

89802
0.001, 0.08, 0.01, 0.18, 0.06

89801
< .001, 11.39, 0.16, 4.90, 6.18

85851 0.001, 3.88, 0.15, 0.43, 17.90
85852 < .001, 5.73, 0.17, 8.40, 8.40
85853 0.002, 0.05, 0.02, 0.07, 0.08

85854 Δ
0.001, 5.14, 0.69, 11.00, 0.30

X 90W-2
< .001, < .01, < .01

X 90W-1
< .001, < .01, < .01

88293 ▲
< .001, < .01

88292 ▲
< .001, < .01

89852 Δ
< .001, < .01, < .01, < .01, 0.01

89851 ▲ < .001, < .01, < .01, < .01, 0.01

IF

ICE FIELD

IF

2184 X

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,162

x 2134

89805 ▲
< .001, 0.19, 0.20, 0.12, 0.09

NA3856

88396 ▲
< .001, 0.30, 0.02, < .01

Marbles
Limestones

ICE FIELD

ICE FIELD

NA4056

IF

IF

89870 Δ
0.007, 0.83, < .01, 0.33, 0.11

Biotite
Schists

X 2034

LEGEND

▲ 88292 ROCK OUTCROP CHIP SAMPLE
Δ 89852 FLOAT ROCK SAMPLE
X 90W-3 STREAM SILT SAMPLE

ASSAY DESCRIPTION

0.058, 77.04, 0.15, 2.50, 3.32 Au opt, Ag opt, Cu %, Pb %, Zn %

N

0 50 100 500m

SCALE 1=10,000m

CARMAC RESOURCES LTD.

WILLISON PROJECT
SAMPLE LOCATION MAP

DRAWN BY: D.P.K.	DATE: DEC. 3, 1990
SCALE: 1=10,000m	FIGURE NO.: 5