GEOLOGICAL AND GEOPHYSICAL REPORT

ON THE

HAGS GROUP CLAIMS

SKEENA AND AND MINING DIVISION,

BRITISH COLUMBIA

NTS: 104 B/9 AND 10

RECENCED]
DEC 7 1883	
Gold Commission Utice VANCOUVER, B.C.	•

Ç

LOG NO;	DEC 2 3 1993	RD.	
ACTION,			
FILE NO:			-

ł

PREPARED BY: PERRY GRUNENBERG, P. GEO.

DECEMBER, 1993

Location: 56°39′ North Latitude; 130°30′ West Longitude

Operator: Canamera Geological Ltd.

Owner: Tagish Resources Ltd. and Alex Briden

Approval #: SMI-93-0100787-220 GEOLOGICAL BRANCH ASSESSMENT REPORT

1/6

<u>SUMMARY</u>

The 75 unit Hags claim group is located between the Unuk and Iskut Rivers of northwestern British Columbia. The claims lay over regional geological structures which are ore bearing in other parts of the region, including the rich Au-Ag Eskay Creek deposit, located adjacent to the claim group.

In the fall of 1993, Canamera Geological Ltd. completed geological, geophysical and geochemical surveys on the HAGS Group claims.

Mapping on the Aftom 10 claim traced pyritiferous, siliceous, felsic volcanic rocks south to north across the west side of the claim. These rocks apparently belong to the Mount Dilworth formation. Rock samples taken from these siliceous volcanics returned non-anomalous values for precious or base metals.

No VLF-EM conductors were found within the East Grid. VLF-EM survey produced one short weak conductor on the West Grid. The feature shows low conductivity but is believed to be within bedrock rather than overburden. No magnetic associations with conductivity were evident.

No significant magnetic anomalies were detected in the East Grid. Magnetic survey over the West Grid showed a change in magnetic environment roughly in the middle of the grid. The change is interpreted as a change from sedimentary rock in the east portion of the grid to volcanic rock in the west.

TABLE OF CONTENTS

	SUM	MARY	i										
TABLE OF CONTENTS													
	INTR	RODUCTION 1.1 LOCATION AND ACCESS 1.2 TOPOGRAPHY, CLIMATE AND PHYSIOGRAPHY 1.3 PROPERTY STATUS 1.4 HISTORY AND PREVIOUS EXPLORATION 1.5 WORK COMPLETED ON THE CLAIM GROUP IN 1993	1 1 2 2 3										
	2.0	GEOLOGY 2.1 REGIONAL GEOLOGY 2.2 PROPERTY GEOLOGY	4 4 5										
	3.0	LITHOGEOCHEMISTRY 3.1 SAMPLE PROCEDURE 3.2 SAMPLE RESULTS	6 6 6										
	4.0	GEOPHYSICS 4.1 PROCEDURE AND INSTRUMENTATION 4.2 VLF-EM SURVEY RESULTS 4.3 MAGNETOMETER RESULTS	7 7 8 9										
	5.0	RECLAMATION	10										
	6,0	REFERENCES	1 1										
	7.0	COST STATEMENT	13										
	8.0	STATEMENT OF QUALIFICATIONS	14										

APPENDIX I - CHEMEX LABS LTD. ASSAY CERTIFICATES

APPENDIX II - EQUIPMENT SPECIFICATIONS

APPENDIX III - DATA LISTING (West Grid)

~

Č

í

<

0

 \langle

С

.

APPENDIX IV - DATA LISTING (East Grid)

ü

FIGURES AND TABLES

FIGURE 1 - LOCATION MAP	after page 1
FIGURE 2 - CLAIM MAP	after page 2
FIGURE 3 - PROPERTY GEOLOGY MAP	after page 4
FIGURE 4 - GRID LOCATION MAP	after page 5
 FIGURE 5 GEOPHYSICS MAPS 5 - 1 CUTLER VLF-EM PROFILES (East Grid) 5 - 2 ANNAPOLIS VLF-EM PROFILES (East Grid) 5 - 3 TOTAL FIELD MAGNETIC PROFILES (East Grid) 5 - 4 CUTLER VLF-EM PROFILES (West Grid) 5 - 5 ANNAPOLIS VLF-EM PROFILES (West Grid) 5 - 6 TOTAL FIELD MAGNETIC PROFILES (West Grid) 	Map Pocket Map Pocket Map Pocket Map Pocket Map Pocket Map Pocket
FIGURE 6 - 9 RECLAMATION PHOTOS	after page 10
TABLE I - LIST OF CLAIMS	after page 2

ć

<

ć

(

Ç

.

1.0 INTRODUCTION

In the fall of 1993, Canamera Geological Ltd. was contracted to complete geological and geophysical surveys on the HAGS group claims. This report documents that work.

1.1 LOCATION AND ACCESS

The property is located in western British Columbia near the Unuk and Iskut rivers, centered at 56°39′ N, and 130°30′ W (NTS 104B/10), approximately 950 kilometers northwest of Vancouver and 80 kilometers northwest of the town of Stewart (Fig.1).

Scheduled flights from Vancouver to Smithers and Terrace are provided by Central Mountain Air and Canadian Regional airlines. A well maintained gravel airstrip is located near the town of Bob Quinn on the Stewart-Cassiar Highway (#37). Local fixed wing charters are available providing flights to this strip.

The property is most easily accessed by helicopter from the Stewart-Cassiar Highway which runs north-south roughly 25 km. east of the property. Northern Mountain Helicopters provides service from Bell II, and Vancouver Island Helicopters provides service from Bob Quinn, both situated along the highway east of the property.

Road construction is currently in progress to provide access to the Eskay Creek mine from the Stewart-Cassiar Highway near the town of Bob Quinn. When completed, this road will run down the west side of the Iskut River to Volcanoe Creek, up Volcanoe Creek past the foot of Mount Shirley to the north end of Tom Mackay Lake, then east into Eskay Creek. This road should be completed by the spring of 1994.

1.2 TOPOGRAPHY, PHYSIOGRAPHY AND CLIMATE

C

0

The property is situated on the western margin of the Coast Ranges of British Columbia. Climate is moderate with cool wet summers and mild winters. Annual precipitation averages 250 cm., much of which falls as snow between the months of October and April. Temperature extremes range from -40 to 30 degrees centigrade, with mean average monthly temperatures ranging from 12 degrees in August, to -10 degrees centigrade in December.

The area has been glaciated and elevations on the property vary from 400 metres above sea level in the Unuk River valley, to 1800 metres above sea level on Mount Shirley. The area is deeply incised by rivers, and steep sided river and stream canyons are common. Tree line is at approximately 1000 metres above sea level.



Vegetation in the area is variable. Coastal Western Hemlock forests extend along the Unuk River basin up to Storie Creek, changing to predominantly Mountain Hemlock forests that extend midway up Eskay and Ketchum Creeks. Steeper and less stable slopes host slide alder, devil's club, and wild raspberry. Remaining areas of Eskay, lower Argillite and mid Tom Mackay Creeks exhibit Englemann Spruce-Subalpine Fir zone characteristics. Upper sections of Argillite and Tom Mackay Creeks and the Mackay Lakes are alpine tundra and are essentially treeless with the exception of minor stunted growth. Vegetation consists mainly of lichen, mosses, sedges and alpine flowers.

1.3 PROPERTY STATUS

C

The property is composed of four modified grid claims totaling 75 units (Figure 2), covering an area of approximately 18 square kilometres. The claims are owned by TAGISH RESOURCES LTD. and Alex Briden. The claim names, record number, size, anniversary dates and ownership's are listed in Table I.

1.4 HISTORY AND PREVIOUS EXPLORATION

The area has a long history of exploration since the discovery of mineralized gossanous bluffs along Eskay Creek, first staked in 1932 by T.S. Mackay and W.A. Prout. Exploration has concentrated on delineating high grade precious metal mineralization. Work completed by the Premier Gold Mining Company from 1935 to 1938 discovered more than 30 mineralized zones along the gossanous bluffs of Coulter and Eskay Creeks. These were numbered in sequence of discovery as zones (e.g. #20 Zone). In 1934, the 84 metre Mackay adit was driven on workings three kilometres southwest of the current 21 zone deposits.

Exploration continued through the decades, with further underground work on the Mackay adit, and development of the Emma adit closer to the 21 Zone, abundant surface trenching, and drilling of 84 diamond drill holes totaling 3,950 metres. This work involved 11 different exploration companies.

In November of 1988, Calpine Resources Inc. (now Prime Resources Ltd.) announced the discovery of high grade precious and base metal mineralization in the 21A Zone. Mineralization consisted of a combination of stockwork mineralization in rhyolite and massive sulfides at the contact of rhyolite with overlying andesite. Additional drilling resulted in the delineation of the 21A Zone and the discovery of the 21B and 21C Zones further to the north.

By the end of 1989, 205 diamond drill holes were completed on the Eskay property. Drilling has defined the 21B Zone as the principle target. This zone has recent published mining reserves of 1.08 million tons grading 65.6 g/t Au, and 2,930 g/t Ag. Substantial underground workings have been driven into this deposit, and exploration is continuing with the prospect of adding additional mining reserves.

TABLE I

. بر بر

• •

.

.

ź

.

:

ί.

(

ς

CLAIM NAME	RECORD #	ANNIVERSARY	# OF UNITS	OWNERSHIP
HAGS 5	253254	9-30-94	15	ALEX BRIDEN
AFTOM 10	253148	9-09-94	20	TAGISH
AFTOM 11	253149	9-09-94	20	TAGISH
AFTOM 13	253151	9-11-94	20	TAGISH



 \mathcal{O}

In September of 1991, geological mapping and prospecting was carried out over limited sections of the claim group by Cambria Geological Ltd. for Tagish Resources Ltd. This work suggested that further mapping was required to define Salmon River formational rocks where argillaceous sediments contain andesitic volcanics.

1.5 WORK COMPLETED ON THE GROUP DURING 1993

<u>х</u>

C

Ś

In the fall of 1993, Canamera Geological Ltd. was contracted to complete geological and geophysical surveys on the HAGS claim group. Reclamation of an old exploration camp on the HAG 5 claim also took place at that time. This work was carried out from a five person camp located to the west of the group, from August 29 to September 3, 1993.

Geologic mapping at a scale of 1:10,000 was constricted to the Aftom 10 claim where interesting geologic structures were previously mapped at a larger scale. A total of seven reconnaissance style rock chip samples were collected during this mapping.

VLF-EM and magnetometer geophysical surveys were conducted on the HAGS claims. Grid lines were preset using hip chain and compass, with E-W lines running from a N-S base line. A total of 8.7 line kilometres of grid was set, upon which 7.9 kilometres of geophysical survey was completed.

2.0 GEOLOGY

2.1 REGIONAL GEOLOGY

On a broad scale, the property sits in the middle of the Iskut-Sulphurets gold camp. This area consists of four major tectonic assemblages which are bounded by unconformities. These are the Paleozoic Stikine assemblage, the Triassic to Jurassic arc complex rocks, the Jurassic Bowser Group, and the Tertiary Coast Plutonic complex.

Paleozoic Stikine assemblage rocks consist of fine to coarse grained sediments with plagioclaise porphyry, felsic tuff, and basaltic lavas. These rocks crop out to the northwest of the property along the Iskut River. Triassic to Jurassic arc complex rocks consist of clastic sediments with volcaniclastic interbeds. These rocks are regionally extensive. Jurassic Bowser Group rocks cover much of the area north of the Prout Plateau and are comprised of thick sequences of thinly bedded siltstone, shale and sandstone with thin lenses of conglomerate. Coast Plutonic rocks are present in the area as a series of plutons, sills, and dikes that range in age from late Triassic to Oligocene. Stocks nearest to the property are the Melville and John Peaks diorites.

In closer proximity to the property within the upper Unuk River drainage, most of the area is underlain by rocks of the lower to middle Jurassic Hazelton Group. This group has been divided into four recognizable formations, the Unuk River formation, Betty Creek formation, Mount Dilworth formation, and the Salmon River formation.

The Unuk River formation is a thick sequence of fine grained andesitic pyroclatics and flows with tuffaceous turbidite, wacke, and conglomerate interbeds. The Betty Creek formation overlies the Unuk River formation and is a heterogeneous sequence of andesitic to dacitic tuffs and flows, interbedded with volcanic derived sedimentary rocks. Thick sequences of pillow lavas found on Mount Shirley have been correlated to the Betty Creek formation. The Betty Creek formation is overlain by the Mount Dilworth formation which consists of a sequence of felsic volcanic rocks. These are typically white weathering, or rusty where pyrite bearing, consisting of rhyolitic to dacitic ash and lapilli tuffs. This sequence of felsic volcanics appears to represent the terminal stages of volcanism in the area. This unit is important as a marker horizon for ore mineralization since it is host to many base and precious metal deposits, including the Eskay Creek deposit. The Salmon River formation is uppermost in the Hazelton Group strata, and consists of mainly turbiditic siltstones and fine sandstones with rare conglomerate, tuff, or volcanic interbeds. These rocks are gradational to the overlaying Bowser Lake Group sedimentary rocks.



2.2 PROPERTY GEOLOGY AFTOM 10 CLAIM

Geological mapping at a 1:10,000 scale was limited to the Aftom 10 claim, where previous regional mapping by the British Columbia Survey has shown that rocks of the important Mount Dilworth formation outcrop along the western margin of the claim. Results of this mapping are shown on Figure 3.

The eastern portion of the property is underlain by sediments of the Bowser Lake Group, including interbedded wacke, conglomerate, and siltstone/argillite. Minor folding is abundant in these sediments, with northerly striking beds dipping steeply to the east and west. Towards the southwestern corner of the property, rocks are predominantly volcanic, with an abundance of andesitic tuffs and flows. Apparent Dilworth formation rocks are evident as felsic volcanic and dacitic rocks in the extreme southwest corner of the Aftom 10 claim, trending south-southeast towards Tom Mackay Lake.



1.

3.0 LITHOGEOCHEMISTRY

0

3.1 SAMPLE PROCEDURE

A total of seven rock chip samples were taken from iron stained outcrops and talus on the Aftom 10 claim. Locations of these samples are shown on Figure 3.

Sample 2751 was taken from highly oxidized, decomposed apparent talus at the south margin of the property. Samples 2752 to 2756 were taken from pyrite bearing felsic volcanics (Mount Dilworth Fm.) along the western margin of the claim where steep terrain allowed limited access. Sample 2757 was taken from pyrite rich (20%) andesite near the contact with Bowser Lake Group sediments. All samples were sent to Chemex Labs Ltd. in North Vancouver for 32 elements ICP analysis, and fire assay for gold.

3.2 SAMPLE RESULTS

Copies of Chemex Labs Certificates of analysis are available in the appendix. Sample number 2751, taken from residual oxidized material, returned very high manganese (> 10,000 ppm) and iron (>15%), apparently concentrated from sulphide bearing material during oxidation. The source of this material is uncertain, but is considered to be close to where the residual material is located.

All of the rock samples returned gold values below the lower detection limits of analysis. Silver assay values reached a high of 1.6 ppm in sample # 2756. This sample also contained slightly elevated values of Cu (165 ppm), Pb (158 ppm), and Zn (170 ppm), indicative of multiple sulphides in this sample, as well as pyrite. Iron values greater than 10% (samples 2756 and 2757) indicate strong pyrite mineralization.

In general, lithogeochemical sampling on the Aftom 10 claim is inconclusive, with no strongly anomalous values of either base or precious metals being returned from these samples.

4.0 GEOPHYSICS

4.1 PROCEDURE AND INSTRUMENTATION

- 4.1.1 Survey Parameters
 - two grids were located on the Hags claims.
 - survey line separation 100 on the West Grid and 150, 200 and 250 metres on the East Grid
 - data station spacing 12.5 m. on both grids
 - horizontal control a north-south baseline was established from which orthogonal lines were surveyed using hip chain and compass.
 - a total of 4.4 km. of VLF-EM and magnetic data were accumulated over the East Grid
 - a total of 3.925 km. of VLF-EM and magnetic data were accumulated over the West Grid

4.1.2 Equipment Parameters

- EDA Omni Plus combined VLF-EM and magnetometer in-phase (dip angle) and quadrature (out-of-phase) measured in percent at each station
- field strength measured at each station
- transmitting stations NAA (24.0 kHz.) Cutler MA
 - NSS (21.4 kHz.) Annapolis MD
- initialization direction east
- earth's total magnetic field measured in gammas (nanoteslas)
- magnetic variations controlled by automatic magnetic base station recording every 30 seconds
- instrument accuracy +/- 0.1 gamma
- station repeatability better than +/- 3 gammas in low gradients

4.1.3 Equipment Specifications - see Appendix I

4.1.4 Calculations

4.1.4.1 Total Field Magnetic Survey

Total field magnetic readings were individually corrected for variations in the earth's magnetic field using magnetic base station values. The formula used for magnetic corrections was: CTFR = TFR + (DBL - BSR) (gammas) where:

CTFR = Corrected Total Field Reading

TFR= Total Field Reading

DBL= Datum Base Level

BSR= Base Station Reading

Additional corrections were made to a portion of the data to compensate for a magnetic base level shift on the West Grid. A constant value of 1000 nT was subtracted from lines 0, 100N and 300N.

4.1.4.2 VLF-EM Survey

Ś

A constant of 40 units was subtracted from Cutler VLF field strength data on lines 900N and 1050N to compensate for a transmitter power increase during survey of these lines.

4.1.5 Presentation

4.1.5.1 East Grid

Cutler VLF-EM in-phase, out-of-phase and field strength readings from the East Grid are presented in profile form on Figure #5-1 at a scale of 1:5000. Annapolis VLF-EM in-phase, out-of-phase and field strength readings from the East Grid are presented in profile form on Figure #5-2 at a scale of 1:5000. Total field magnetic data from the East Grid are presented in profile form on Figure #5-3 at a scale of 1:5000.

4.1.5.2 West Grid

Cutler VLF-EM in-phase, out-of-phase and field strength readings from the West Grid are presented in profile form on Figure #5-4 at a scale of 1:5000. Annapolis VLF-EM in-phase, out-of-phase and field strength readings from the West Grid are presented in profile form on Figure #5-5 at a scale of 1:5000. Total field magnetic data from the West Grid are presented in profile form on Figure #5.6 at a scale of 1:5000.

4.2 VLF-EM SURVEY RESULTS

4.2.1 East Grid

VLF-EM coverage on the East Grid showed no conductive response that could be attributed to bedrock conductivity. Only minor perturbations in the profiles caused by topography or slight changes on overburden conductivity were evident.

4.2.2 West Grid

 $\overline{\zeta}$

VLF-EM results from the West Grid indicate one short conductor centered on line 300N. The conductor appears to strike north-northeast and continue south to line 200N and possibly north to line 400N. Conductivity is low although profile character suggests a bedrock conductor rather than conductive surface material. Dip can not be reliably predicted based on present data. No magnetic associations with conductivity are apparent.

4.3 MAGNETOMETER RESULTS

4.3.1 East Grid

The survey over the East Grid yielded no significant magnetic anomalies. A few small single station peaks can be found throughout the grid however no continuation from line to line can be accurately predicted due to the large distance between survey lines and because the character of the small magnetic features is not unique or diagnostic.

4.3.2 West Grid

Magnetic results on the West Grid show a major change in magnetism at about 800E on all lines. Magnetic profiles show a change from a flat non-anomalous environment typical of a sedimentary rock type to a more active (numerous highs and lows) magnetic environment typical of a volcanic rock type. Thus the dashed line shown on Figure #5-6 Total Magnetic Profiles (West Grid) represents the interpreted approximate location of a contact between sedimentary and volcanic rocks. Various magnetic high anomalies can be seen within the interpreted volcanic environment and are probably due to variations in magnetic mineral content within the volcanic rock.

5.0 RECLAMATION

Ś

<

(

1

 \langle

2

(

ć

~

Ĉ

While exploring this area, the remains of a previous exploration camp were discovered on the HAGS 5 claim. Substantial amounts of lumber were left on site from floors and walls of several tents, plus an assortment of other odds and ends. This debris was collected, and clean up was completed by burning.

The 1993 Canamera Geological Ltd. exploration camp, located on the Aftom 11 claim, was cleaned and disposed of in a similar manner, after all camp supplies and equipment were demobed.

Copies of photos taken before and after reclamation of these two sites are shown on Figures 6 to 9.



Fig. 🖌 Canamera Geological Ltd. 1993 exploration campsite before clean up.

C



Fig. 7 Conamera Geological Ltd. 1993 camp site after demobilization.



Fig. 8 Old exploration camp debris on Hags 5 claim.

 \mathcal{C}

C



Fig. 9 Old exploration camp site on Hags 5 claim after reclaimation.

60 REFERENCES

(

ć

BARTSCH, R.D., ESKAY CREEK AREA, STRATIGRAPHY UPDATE (104B/9, 10), Mineral Deposit Research Unit, the University of British Columbia, in Ministry of Energy, Mines and Petroleum Resources geological fieldwork 1001, paper 1992-1.

BARTSCH, R.D., A RHYOLITE FLOW DOME IN THE UPPER HAZELTON GROUP, ESKAY CREEK AREA (104B/9, 10), Mineral Deposit Research Unit, the University of British Columbia, in the Ministry of Energy, Mines and Petroleum Resources geological fieldwork 1992, paper 1993-1.

BRITTON, J.M., BLACKWELL, J.D., AND SCHROETER, T.G., #21 ZONE DEPOSITS, ESKAY CREEK, NORTHWESTERN BRITISH COLUMBIA, British Columbia Geological Survey Branch of the Ministry of Energy, Mines and Petroleum Resources, Exploration in British Columbia summary 1989.

CHAPMAN, J., AND RAVEN, W., GEOLOGICAL, GEOPHYSICAL, AND GEOCHEMICAL COMPILATION CONSOLIDATED POWERGEM RESOURCE CORPORATION ALBINO LAKE PROJECT (ALPHA, BETA, GAMMA, EPSILON, OMEGA, RHO, PI, DELTA PHI CLAIMS), December 15, 1989 assessment report of Orequest Consultants Limited.

DAWSON, G.L., AND HARRISON, D.J., GEOLOGICAL REPORT ON THE AFTOM 9 CLAIM, Skeena Mining Division for Waterford Resources Ltd.

HICKS, K.E. AND METCALFE, P., GEOLOGICAL REPORT ON THE AFTOM 5, 6, 7, 10, 11, 13 AND 20 CLAIMS, for Tagish Resources Ltd., Dec. 04, 1991.

HOPPER, D.H., ASSESSMENT, PROSPECTING, ROCK SAMPLING REPORT ON THE FRED 16 AND DUP 8 CLAIMS, Nov. 17, 1989.

KILLIN, KEVIN, REPORT ON A COMBINED HELICOPTER BORNE MAGNETIC ELECTROMAGNETIC AND VLF-EM SURVEY, UNUK RIVER AREA, Unuk River Area, Northeastern British Columbia, for Swift Minerals Ltd., Oct. 20, 1989.

LEWIS, P.D., STRUCTURAL GEOLOGY OF THE PROUT PLATEAU REGION, ISKUT RIVER MAP AREA, BRITISH COLUMBIA (104 B/9), Mineral Deposit Research Unit, the University of British Columbia, in the Ministry of Energy, Mines and Petroleum Resources geological fieldwork 1001, paper 1992-1.

MACDONALD, J., LEWIS, P.D., ETTLINGER, A.D., BARTSCH, R.D., MILLER, B.D. AND LOGAN, J.M., BASALTIC ROCKS OF THE MIDDLE JURASSIC SALMON RIVER FORMATION, NORTHWESTERN BRITISH COLUMBIA, Mineral Deposit Research Unit, the University of British Columbia, in the Ministry of Energy, Mines and Petroleum Resources geological fieldwork 1992, paper 1993-1. **ROTH, T.**, SURFACE GEOLOGY OF THE 21A ZONE, ESKAY CREEK, BRITISH COLUMBIA, Mineral Deposit Research Unit, the University of British Columbia, in the Ministry of Energy, Mines and Petroleum Resources geological fieldwork, 1992, paper 1993-1.

Ć

C

ŝ

Ś

ć

2

2

0

VISSER, SYD, MAGNETOMETER AND VLF-EM SURVEY ON THE FRED 16 CLAIM for Silver Princess Resources Inc., Skeena MD, BC, October, 1989.

7.0 COST STATEMENT

SALARIES

C

Ċ

1

 \langle

Ç

ć

;

:

Ś

C

Office Supplies, etc.)	
CONTINGENCIES At 10% (Shipping Costs, Communications, Fuels)	<u>1,777.00</u>
SUB TOTAL	\$17,770.00
ASSAY COSTS 7 Samples X \$30/sample	<u>210.00</u>
GEOPHYSICAL EQUIPMENT RENTAL Computer & Radios: 4 days X \$800/day	3,200.00
HELICOPTER COST VIH Helicopter 8 hrs. X \$720/hr.	5,760.00
CAMP COSTS Camp Rental: 4 days X \$250/day Food & Supplies: 4 days X \$150/day	1,000.00 600.00
TRAVEL COSTS Vehicle Rentals (apportioned) & Airline Tickets (apportioned)	2,000.00
2 Line Surveyor/Samplers X 4 Mandays X \$200/day 2 Geophysical Technicians X 4 Mandays X \$250/day Perry Grunenberg, P. Geo. X 4 Mandays X \$350/da	y 1,600.00 y 2,000.00 y 1,400.00

8.0 STATEMENT OF QUALIFICATIONS

PERRY GRUNENBERG, B.Sc., F.G.A.C., P. Geo.

ACADEMIC

ς

С

ς

ζ

 \langle

C

Ć

Ċ

 \langle

С

1982	B. Sc. in Geo	logy	The University of British Columbia
1987	Fellowship		Geological Association of Canada
1992	Membership		Association of Professional Engineers and Geoscientist of British Columbia
PROFESSIONAL			
1989 TO PRESENT		P ANI	D L GEOLOGICAL SERVICES, SMITHERS, BC
		Contra explor	act geologist working on mining and mining ation throughout BC and the Northwest Territories
1984 to 1989		HUGH	IES-LANG EXPLORATIONS, VANCOUVER, BC
		Project geophy drilling Yukon	t geologist employed to work on geological, ysical, and geochemical surveys with follow-up and trenching, in areas throughout BC and the
1983		STRA' VANC	TO GEOLOGICAL ENGINEERING LTD. COUVER, BC
		Project mining Washir	t geologist contracted to work in all aspects of exploration on properties in Nevada and agton, USA, and in British Columbia.
1982		P ANE	L EXPLORATION, VANCOUVER, BC
		Contra prospe	ct geologist involved in evaluating placer gold cts near Quesnel and Princeton, BC
1978 to 1981		RIO A MANA	LCOM, KENNECOTT CANADA, AND MARK AGEMENT LTD.
		Summe Columi	er student involved in exploration projects in British bia.

8

14.

CERTIFICATE

- I, Edwin Ross Rockel, Geophysicist of Surrey, British Columbia, Canada, hereby certify that:
- 1. I received a B.Sc. degree in Geophysics from the University of British Columbia in 1966.
- 2. I am a Consulting Geophysicist contracted to Canamera Geological Ltd. located in the City of Vancouver, in the Province of British Columbia.
- 3. I currently reside at 13000 54A Ave, in the City of Surrey, in the Province of British Columbia.
- 4. I have been practising my profession since graduation.
- 5. I am a Professional Geophysicist registered in the Province of Alberta.
- 6. I am a Certified Professional Geological Scientist registered in the United States of America.
- 7. I am a Professional Geoscientist registered in the Province of British Columbia.

Date: Dec. 7 93 Signed:

Surrey, British Columbia

<

 \langle

ć

Ç

Edwin Ross Rockel B.Sc., P.Geoph., P.G.S., P.Geo.



APPENDIX I

.

C

 \langle

 \langle

ζ

ζ

2

<

Ś

Č

.

CHEMEX LABS LTD. ASSAY CERTIFICATES

To: CANAMERA GEOLOGICAL LTD.

03

220 CAMBIE ST., SUITE 290 VANCOUVER, BC V6B 2M9

 \mathbf{O} \cap Page Number :1-A Total Pages :1 Certificate Date: 07-OCT-93 Invoice No. : 19322190 P.O. Number : AFTOM Account :KBO

Project : AFTOM-ESKAY Comments: AFTOM-ESKAY

	· · .	1								CE	RTIF	CATE	OF /	NAL	YSIS		49322	190		
SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Pe %	Ga ppm	Eg ppm	K ¥	La ppm	Mg %	Mn ppm
752 753 754 755 756	205 274 205 274 205 274 205 274 205 274 205 274	<pre>< 5 < 5</pre>	0.4 0.4 0.4 0.4 1.6	0.31 2.00 1.51 0.60 1.59	26 6 < 2 5 20	130 10 60 90 < 10	< 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	< 2 < 2 < 2 < 2 < 2 < 4	0.03 0.71 0.28 0.34 0.58	< 0.5 0.5 0.5 < 0.5 1.5	2 13 3 1 11	191 48 59 86 101	8 28 10 15 165	2.61 8.10 5.89 4.89 11.85	< 10 < 10 10 < 10 10	< 1 < 1 < 1 < 1 < 1	0.18 0.02 0.08 0.03 0.01	10 < 10 10 < 10 < 10	0.08 1.39 0.94 0.22 0.85	30 880 565 100 350
757	205 274 205 274 205 274 205 274 205 274 205 274	< 5 < 5 < 5 < 5 < 5 < 5	0.2 < 0.2 1.8 < 0.2 < 0.2 < 0.2	2.00 1.00 1.65 2.41 0.36	< 2 22 46 < 2 24	40 200 30 40 40	< 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	2 < 2 < 2 < 2 < 2 < 2 < 2	0.80 0.17 0.41 1.19 0.16	1.0 < 0.5 < 0.5 0.5 < 0.5	15 3 11 27 1	44 40 94 24 198	41 7 11 10 3	11.45 6.14 4.53 9.60 1.36	10 < 10 < 10 10 < 10	< 1 11 1 1 < 1	0.03 0.35 0.57 0.12 0.03	< 10 < 10 < 10 < 10 < 20	1.11 0.19 0.45 1.09 0.03	590 150 100 550 65
	205 274 205 274 205 274 205 274 205 274 205 274	< 5 < 5 < 5 < 5 < 5	< 0.2 < 0.2 < 0.2 < 0.2 < 0.2 < 0.2	0.86 3.04 3.05 0.39 2.02	22 ~ 2 14 30 ~ 2	130 330 80 90 140	< 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	< 2 < 2 < 2 < 2 < 2 < 2 < 2	0.26 0.06 1.07 8.56 6.86	< 0.5 015 < 0.5 0.5 0.5	4 1 16 20 21	116 33 18 24 26	6 2 11 4 5	2.53 5.08 7.42 4.05 6.15	< 10 10 10 < 10 10	< 1 < 1 < 1 < 1 < 1	0.33 0.23 0.21 0.09 0.01	10 < 10 < 10 < 10 < 10 < 10	0.18 1.82 1.89 0.31 1.31	145 585 775 1535 1420
	205 274 205 274 205 274 205 274 205 274 205 274	5 10 < 5 < 5 25	< 0.2 < 0.2 < 0.2 < 0.2 < 0.2 1.2	0.34 0.50 0.46 0.85 1.13	120 86 44 34 12	60 40 30 30 210	< 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	< 2 < 2 < 2 < 2 < 2 < 2 < 2 < 2	11.10 7.85 1.64 6.53 0.13	0.5 0.5 0.5 0.5 < 0.5	17 13 21 25 3	25 50 103 29 77	5 10 10 11 8	4.96 13.35 6.98 5.97 1.49	< 10 < 10 10 < 10 < 10	2 < 1 < 1 < 1 < 1 < 1	0.08 0.13 0.04 0.04 0.67	< 10 < 10 < 10 < 10 < 10 10	0.20 0.24 0.21 0.40 0.11	2710 1755 645 2000 45
															·					
								I												
															۲					



b 2 2 2 b'

Chemex Labs Ltd.

6.5

Analytical Chemists * Geochemists * Registered Assayers 212 Brooksbank Ave., North Vancouver British Columbia, Canada V7J 2C1 PHONE: 604-984-0221

1.5

13

**

15

 $\mathcal{C} X$

drest Brokeling CERTIFICATION:

To: CANAMERA GEOLOGICAL LTD.

 $< \gamma$

 \sim

**

220 CAMBIE ST., SUITE 290 VANCOUVER, BC V6B 2M9 Page Number : 1-B Total Pages : 1 Certificate Date: 07-OCT-93 Invoice No. : 19322190 P.O. Number : AFTOM Account : KBO

 \cap

 \sim

Project : AFTOM-ESKAY Comments: ATTN: P. GRUNENBERG

13

 $\left(\right)$

 $\langle \gamma \rangle$

11

212 Brooksbank Ave., North Vancouver British Columbia, Canada V7J 2C1 PHONE: 604-984-0221

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

17

 $+\infty$

									CI	ERTIF	CATE	OF A	NALY	(SIS	A9322190
SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	bbw b	Pb ppm	Sb ppm	Sc ppm	Sr Ti ppm %	Tl ppm	U mqq	V mgg	W mqq	Zn ppm	
2752 2753 2754 2755 2756	205 274 205 274 205 274 205 274 205 274 205 274	5 < 1 20 10 36	< 0.01 0.07 0.04 0.11 0.03	4 7 8 13 7	120 850 910 320 390	14 10 22 20 158	< 2 4 < 2 2 4	1 31 6 4 5	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	< 10 < 10 < 10 < 10 < 10 < 10	< 10 < 10 < 10 < 10 < 10 < 10	2 330 34 29 27	< 10 < 10 < 10 < 10 < 10 < 10	58 86 62 14 170	· · · · · · · · · · · · · · · · · · ·
2757	205 274 205 274 205 274 205 274 205 274 205 274	< 1 3 7 1 2	0.10 0.04 0.06 0.04 0.25	15 < 1 3 < 1 3	650 1880 1910 1260 170	8 12 18 8 6	6 < 2 < 4 < 2 < 2	18 6 13 1	6 0.35 18 < 0.01 16 0.01 31 < 0.01 18 < 0.01	< 10 < 10 < 10 < 10 < 10 < 10	< 10 < 10 < 10 < 10 < 10 < 10	257 45 37 186 15	< 10 < 10 < 10 < 10 < 10 < 10	110 22 34 80 12	
	205 274 205 274 205 374 205 274 205 274 205 274	2 < 1 < 1 4 1	0.14 0.01 0.01 0.09 0.03	3 < 1 2 < 1 1	470 140 1470 1180 910	18 2 8 2 2	2 < 2 < 2 4 2	2 4 10 13 18	$\begin{array}{r} 27 < 0.01 \\ 9 < 0.01 \\ 36 < 0.01 \\ 184 < 0.01 \\ 126 < 0.01 \end{array}$	< 10 < 10 < 10 < 10 < 10	< 10 < 10 < 10 < 10 < 10 < 10	5 30 67 87 226	< 10 < 10 < 10 < 10 < 10 < 10	40 86 92 108 60	
	205 274 205 274 205 274 205 274 205 274 205 274	7 22 3 < 1 5	0.06 0.03 0.15 0.05 0.04	< 1 < 1 < 1 < 1 1	780 640 1220 1250 710	4 14 8 12 14	10 12 8 6 12	14 8 10 20 2	$ \begin{array}{r} 191 < 0.01 \\ 182 < 0.01 \\ 43 & 0.01 \\ 112 < 0.01 \\ 6 < 0.01 \\ \end{array} $	< 10 < 10 < 10 < 10 < 10 < 10	< 10 < 10 < 10 < 10 < 10 < 10	53 46 134 207 21	< 10 < 10 < 10 < 10 < 10	32 62 42 176 4	
															·

Chemex Labs Ltd.

1

 ~ 1

Analytical Chemists * Geochemists * Registered Assayers

1

212 Brooksbank Ave., North Vancouver British Columbia, Canada V7J 2C1 PHONE: 604-984-0221

13

()

To: CANAMERA GEOLOGICAL LTD.

 $|C_{\rm ext}|_{\rm A}$

 $\ell \propto$

= *

17

220 CAMBIE ST., SUITE 290 VANCOUVER, BC V6B 2M9

Project : AFTOMM Comments: CC: JOHN DUPUIS

 $\langle \rangle$ Ω Page Number :1-A Total Pages :1 Certificate Date: 22-SEP-93 Invoice No. : 19321243 P.O. Number : Account :KBO

· · · · · · · · · · · · · · · · · · ·											CE	RTIFI	CATE	OF A	ANAL)	/SIS		49321	243		
SAMPLE	PRI COI	SP D E	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cđ ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
2751	205	274	FA+AA	ppm 1.0	* 2.93	28	ppm 290	ppm 10.0	ppm < 2	% 0.98	ppm < 0.5	<u>ppm</u> 11	25	22 22	<u>*</u> >15.00	30	<u>ppm</u> 4	0.02	60 60	0.51	ppm >10000
																	-+				
														1	CERTIFIC	ATION:	42	wH	کلند	hle	h.

Chemex Labs Ltd.

 (γ)

 $\sim \infty$

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver British Columbia, Canada V7J 2C1 PHONE: 604-984-0221

 $- \gamma$

11

 $\langle \rangle$

To: CANAMERA GEOLOGICAL LTD.

 $\epsilon_{\rm A}$

 \mathbf{N}

**

1

220 CAMBIE ST., SUITE 290 VANCOUVER, BC V6B 2M9

Project : AFTOMM Comments: CC: JOHN DUPUIS Page Number : 1-B Total Pages : 1 Certificate Date: 22-SEP-93 Invoice No. : 19321243 P.O. Number : Account : KBO

dN

 γ

	- r		-							CERTIFICATE OF ANALYSIS							A9321243
SAMPLE	PR CO	ep De	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	D W	V ppm	W Mqq	Zn ppm	
2751	205	274	65	0.01	12	510	10	6	80	103	0.10	< 10	< 10	70	50	410	

CERTIFICATION: Hart Bichler

APPENDIX II

Ś

2

-

ć

Ç

(

ć

.

EQUIPMENT SPECIFICATIONS

omniplus VIF/MagnetometerSystem

ζ

(

1

1	L.			٤.,					_		-	4.	۰.											۰.				-				Lī		_		17	. 2	_	
т	Ľ	г	17	Ľ,	- 1		0	1	1	1	т	Ľ	Ľ	11	C	1	11		11		1	гI	1	Ľ	г		T.	T	т	17	1	. 1			1	7	+	Т	
т	r		Γ.					т	л	т	т	Γ.	Γ.						П	т	Т	П	7	г	г	1	T	т	т		n			•	H	-	+	+	
7	t	٣	Н			н	H	1	-7	Ŧ	T	г	r	н	-	М		r											+	11		~	-	-	н	٠	٠	۰	-
Υ.	۳	r			-			1		٠	Ŧ	r	г																				-		н	•	٠	٠	
٠	۰	÷		-	-	н	-	-	٠		۰	r	-	н	-	-	-							-			_		•	•			-	-	ю	٠	+		
٠	٠	н	н	н	H	н	÷	-	4	٠	÷	۰	۰	н		-		s		•	t	• •	•	t	н	н	÷	٠	٠				-	•	-	•	٠	4	
٠	٠	н	н	н		н	н	•	+	٠	٠	٠	÷	н	н		-	н			•	+	٠	٠	н	н	-	٠	٠				-1	-	-	4	1	L	
۰	-	н	н	-	-	-	-	-	4		٠	۰		ч	-		-	-		_	-	-		-	н	н	-	+							1	1	1	т	
Ł	-	н	ч	-	_	-	-	4	÷	∔	╇		-	ч	-		-	-		۰.	1		1	L.		1		э.	÷.	н		ĸ	- 1	7	Т	Т	т	т	
Ļ.		н	н	-	-	н	-		٠	٠	٠		н	н	ч	н	-	ч												-									
L								1				L																											
L	Ι.							х	т	т	т	Е									Γ.		r	г			T	т	г				т					r	n

Specifications*
Frequency Tuning Range
Transmitting Stations Measured Up to 3 stations can be automatically measured at any given grid location within frequency tuning range
Recorded VLF Magnetic Parameters
Standard Memory Capacity 800 combined VLF magnetic and VLF electric measurements as well as gradiometer and magnetometer readings
Display
RS232C Serial I/O Interface
Test Mode
Sensor HeadContains 3 orthogonally mounted colls with automatic tilt compensation
Operating Environmental Range
Power Supply
Weights and Dimensions Instrument Console
Preilminary

EDA Instruments Inc., 4 Thornaliffe Park Drive, Toronto, Ontario Canada M4H 1H1 Telex: 06 23222 EDA TOR, Cables: Instruments Toronti (416) 425-7800

In USA, EDA Instruments Inc., 5151 Ward Road, Wheat Ridge, Colorado U.S.A. 60033 (303) 422-9112

Printed in Caracia

TH 1211								175	T 7 7					TT						TT I	7	TT						_	_	_		-	_			_			_	_	_
+011111	TTTT						TT			***		***		_	***			***	4++	+++	***	1++	***	-++										++.		_	÷				
*****						_									***	_	_			***	***																_	111		11	
1044444	****	****						4 f - L			11				Z I 1		132												117	11.	ш	17	ш	л.	п		п	171			_
THEFT					_				111		111	117	ITI	ТТ	? T T	TT-	171	F 1 3	111	113	LJ 2	121		111	7 T T	п			п	TT	m	11		т			TT *			TT 1	TT
T 1111	لتقللهما			11110				IIT	177								11		<u>, 11</u>	-	1 7 7	171		TT			-				***							• • •			++
+			1111	71111									+++						***	***				***	+++		-++		***		***	***		***			***			 .	
******					тп						-	**	***						***												44	44.		44.				44	_		
144444					_	_		***	***	+++	-					_				***		444								-											
1444						_		<u></u>						11		111	111.				1.1	111					111	111	171	111	ш	71.2		I I .			т т т	пт	T T T	113	
T			1					Z	111		TT	171	П	TT	пт		TT	TTT	TT7	TT	111	312	тт	ΠТ					T 7 T		12				пп						TT
- T T T T								пт	п	ш	T								TTT		пт	111					111		.,,			_						н			
		_										***			+++				+++	***		***		++		H		**	***			* H		н.		**		HH			
			-											-	***						***	***	-++-				***		***			***	-	***	***	**		+++	++		-
	_				-		_	***									_			44			**			_			~			÷ H	-			-			_		-
						_	_	_			_																	ш.													
1														LL.	111	111		ITT	337	ш	к.	ш	11	11	тт		T	TΤ	577	11	TT	тп	TT	T I I	Т.	TL	111		тт	т т т	TI
TILE								ша:	113	177	T	ш		TT	TT:	1.7			111	T . T	пп	m								7				17				7.7			т
												_	_	_		_	_			_		_	_	_	_	_										_	_	_	_	_	_
											113		111							T7 T	171				1 7 6		T 1 1													7 T I	
1+++-	T-11			- h	-17				+++	488		##		++-	H	TT.	+	##	111	нı	щ	₩	- 11-	44	111		H		ц.		-		-	1	-++	44		44		44	++
11111	ΤIΠ	UФ	1117	ha i	тņ		-#		##	###	#	ш	ш	#	H	H		H	H	Ш	ш	ᄈ	H.	Η	Ш	-	Ш		Hi	T I		н	Ŧ	Н	H	#	t±	Ht	#	Ш	11
1	<u>HB</u>	1Æ	ΗH		Ŧ				Ħ	ш	#		Ш	Ħ		H			Ħ		Ш		#	Ħ	Ш		₩		Ħ	t		H	Ŧ				Ħ	Ħ	H	Ш	H
	Į III II.	ЧÆ	ΠĦ		щ					H	Ħ			黊		Ħ	ŧ		₿			Ш	ŧ	Ħ	Щ		₿		H	ţ	Ħ	ļ	Ŧ	H	⋕	Ħ	Ħ	#	Ħ		Ħ
	ļ	R	H		11		ŧ			₽		Ħ		Ħ		ŧ	ŧ	#					ŧ	#	H		Ĥ	#	Ħ	ij	#	ļ	I	ŀ	⋕		Ħ	⋕			ł
		P	Ħ		1		ij			H	Ħ	Ħ		Ħ		ļ		#	Ħ,			ł	ŧ	#	H		ļ	Ħ	Ħ		Ŧ	1			Ħ		Ħ				Ħ
					ï		ļ			Ï		H	Ę	Ħ				#					ŧ.	#			ij								ļ						ļ
		i.				1) 4							h	Ħ										#																	
		ĺ			Î			4					ī											Ħ										11. HE							
		ĺ						4					Ī																					144 HH							
		ļ						4																								: C 1 ::::									
		1																														:: C 1 ::::									
				, , , , , , , , , , , , , , , , , , ,																																					
		ſ		•																																					
		1																																							



Specifications	
Dynamic Range	

ζ

<

0

Dynamic Range	18,000 to 110,000 gammas. Roll-over display feature suppresses first significant digit upon exceeding 100,000 gammas.	
Tuning Method	Tuning value is calculated accurately utilizing a specially developed tuning algorithm	
Automatic Fine Tuning	. ± 15% relative to ambient field strength of last stored value	
Display Resolution	, 0.1 gamma	
Processing Sensitivity	. ± 0.02 gamma	
Statistical Error Resolution	0.01 gamma	
Absolute Accuracy	± 1 gamma at 50,000 gammas at 23°C ± 2 gamma over total temperature range	
Standard Memory Capacity		
Total Field or Gradient	1,200 data blocks or sets of readings	
Reco Station	100 data blocks or sets of readings	Į –
Dicolay	Suctor designed managed levid or stal display with an	
USP81	operating temperature range from ~40°C to + 55°C. The display contains six numeric digits, decimal point, battery status monitor, signal decay rate and signal amplitude monitor and function descriptors.	
RS 232 Serial I/O Interface	2400 baud, 8 data bits, 2 stop bits, no parity	
Gradient Tolerance	, 6,000 gammas per meter (field proven)	
Test Mode	A. Diagnostic testing (data and programmable memory) B. Self Test (hardware)	
Sensor	Optimized miniature design. Magnetic cleanliness is consistent with the specified absolute accuracy.	
Gradient Sensors	0.5 meter sensor separation (standard), normalized to gammas/meter, Optional 1.0 meter sensor separation available. Horizontal sensors optional.	
Sensor Cable	Remains flexible in temperature range specified, includes strain-relief connector	
Cycling Time (Base Station Mode)	Programmable from 5 seconds up to 60 minutes in 1 second increments	
Operating Environmental Range	-40°C to +55°C; 0-100% relative humidity; weatherproof	
Power Supply	Non-magnetic rechargeable sealed lead-acid battery cartridge or belt; rechargeable NiCad or Disposable battery cartridge or belt; or 12V DC power source option for base station operation.	
Battery Cartridge/Belt Life	2,000 to 5,000 readings, for sealed lead acid power supply, depending upon ambient temperature and rate of reading.	
Weights and Dimensions	i canin Az	1
iostrument Console Only	2 8 kg 278 x 150 x 250mm	
NiCad or Alkaline Battery Cartridge	1.2 kg, 236 x 136 x 230 mm	
NiCad or Alkaline Battery Belt	1.2 kg 540 v 100 v 30mm	1
lead-Acid Battery Cartridge	19 kg 375 x 105 x 00mm	
Lead-Acid Battery Beit	1.8 kg, 255 x 105 x 50404	1
Sensor	12 kg 55mm diamatar v 200mm	1
Gradient Sensor		
10.5 m separation - standard	2.1 kg. 56mm diameter x 790mm	
Gradient Sensor		
(1.0 mseparation - optional)	2.2 kg, 56mm diameter x 1300mm	
Standard System Complement	Instrument console; sensor; 3-meter cable, aluminum sectional sensor staff, power supply, harness assembly, operations manual.	
Base Station Option	Standard system plus 30 meter cable	
Gradiometer Option	Standard system plus 0.5 meter sensor	

E D A Instruments Inc. 4 Thorncliffe Park Drive Toronto, Ontario Canada M4H 1H1 Telex: 06 23222 EDA TOR Cable: Instruments Toronto (416) 425 7800

In U.S.A. E D A Instruments Inc. \$151 Ward Road Wheat Ridge, Colorado U.S.A. 80033 (303) 422 9112

Printed in Canada

APPENDIX III

C

Ċ

(

Ċ

(

:

Ś

(

2

.

DATA LISTING

EAST GRID

CANAMERA GEOLOGICAL LTD. Data Listing

1 N

Area:	ESKAY CREEK, B.C.	Current File Name:	HAGSDATE.GPH
Grid:	HAGS GROUP (East Grid)	From File Name:	HAGSE, XYZ
Date:	December, 1993		

INSTRUMENT TYPE: EDA Omni Plus VLF-EM/Magnetometer System

17

(Line & Station + = Northings and Eastings, - = Southings and Westings)

DATA TYPE(S):

 (γ)

DATA DETAILS:

 $< \gamma$

 $(-\infty)^{-1}$

 $<\gamma$

1.

 \sim

#2. Total Field Magnetic Values	Corrected total magnetic field
#3. VLF-EM In-Phase Values	Cutler Transmitter - facing east
#4. VLF-EM Quadrature	Cutler Transmitter - facing east
#5. VLF-EM Field Strength	Cutler total field strength
#6. VLF-EM In-Phase Values	Annapolis Transmitter - facing east
#7. VLF-EM Quadrature	Annapolis Transmitter - facing east
#8. VLF-EM Field Strength	Annapolis total field strength

Easting	Northing	# 1 .	# 2.	#3.	# 4.	# 5.	# 6.	# 7.	# 8 .
		Station							
line 900									
3600	900	3600	57011	-6.6	1.3	50.4	-1,6	3.3	6.4
3612.5	900	3612.5	57007	-7.1	1.1	49.9	0.6	4.1	6.3
3625	900	3625	57011	-7.3	0.3	49.4	0.9	4.1	6.3
3637.5	900	3637.5	57009	-7.2	0.1	48.4	0.7	5.3	6.3
3650	900	3650	57022	-8.4	0.6	50.4	2.7	6.0	6.4
3662.5	900	3662,5	57017	-8.9	-1.2	49.0	2,5	5,7	6.4
3675	900	3675	57015	-9.2	-1.5	49.4	2.8	5.5	6.4

()	()	4 5	<i>*</i> .	$\langle \gamma \rangle$	/	`	1 N	(N)	\sim	
Easting	Northing	# 1.	# 2.	#3.	# 4 .	# 5.	# 6,	# 7 .	# 8 .	
3687,5	900	3687.5	57014	-7.9	-0.4	49.9	5.0	5.1	6.4	
3700	900	3700	57018	-9.0	-0.6	50.1	6.6	6.9	6.4	
3712.5	900	3712.5	57016	-8.9	-0.2	49,9	6.1	6.7	6.5	
3725	900	3725	57013	-7.6	0.6	51,8	7.3	7.3	6.5	
3737.5	900	3737.5	57016	-5.2	2.7	51.1	9.7	8.0	6.4	
3750	900	3750	57018	-4.7	3.3	50.0	9.5	7.6	6.3	
3762.5	900	3762.5	57019	-3.1	4.9	49.5	9.1	7,6	6.2	
3775	900	3775	57020	-2.3	5.5	49,5	10.2	7.5	6.2	
3787.5	900	3787.5	57019	-2.4	5.5	48.8	8.9	6.5	6.2	
3800	900	3800	57020	-1.1	5.9	48.6	8.2	6.5	6.3	
3812.5	900	3812.5	57018	-2.0	5.7	47.3	6.5	5.9	6.2	
3825	900	3825	57015	-1.6	6.1	46.2	5.3	2.8	6.3	
3837.5	900	3837.5	57019	-3.1	5.0	45.6	5.5	3.7	6.2	
3850	900	3850	57021	-5.0	3,9	46.1	6.5	3.4	6.1	
3862,5	900	3862,5	57024	-6.2	3.1	46.5	6.3	3.5	6.2	
3875	900	3875	57026	-7.8	2.3	46.6	5,0	2.9	6.1	
3887.5	900	3887.5	57025	-7.6	2.6	47.4	5.2	3.1	6.2	
3900	900	3900	57026	-7.1	2.6	47.1	4.5	2.2	6.2	
3912.5	900	3912.5	57027	-7.8	2.6	47.3	4.5	2.0	6.2	
3925	900	3925	57026	-9 .7	1.7	48,0	4.2	2.4	6.3	
3937.5	900	3937.5	57026	-8.0	3.6	48.1	4,6	2.5	6.3	
3950	900	3950	57025	-9.0	3.0	47.8	3.6	1.2	6.4	
3962.5	900	3962.5	57023	-9.2	2.9	48.2	3.0	0.8	6.4	
3975	900	3975	57021	-8.7	2.8	48.7	3.1	0.8	6.4	
3987.5	900	3987.5	57020	-6.9	3.6	45.2	4.3	1.3	5.1	
4000	900	4000	57025	-3.2	4.9	4 4.1	6.7	4.4	5.2	
4012.5	900	4012.5	57027	-6.0	2.2	43.4	2.3	2.2	5.2	
4025	900	4025	57032	-6.6	-0.4	43.9	0.8	1.2	5.2	
4037.5	900	4037.5	57030	-8.7	-0.5	43.7	-2.2	1.2	5.1	
4050	900	4050	57032	-8.8	-0.6	43.7	-4.2	-0.4	5.2	

\cap		C N	/ 's	4 N.		()	6 X	6 X	\sim
Easting	Northing	# 1.	# 2.	# 3.	# 4 .	# 5.	# 6.	# 7 .	# 8 .
4062.5	900	4062.5	57030	-9.0	1.1	45.4	-5,4	-0.6	5.2
4075	900	4075	57029	-9,5	-2.0	42.8	-5.4	-0.3	4.7
4087.5	900	4087.5	57036	-10.4	-2.3	42.8	-6,0	-0.7	4.6
4100	900	4100	57038	-9.0	-1.6	42.8	-5.6	-0.2	4.6
4112.5	900	4112.5	57036	-7.8	-0,9	42.5	-5.3	-0.3	4.7
4125	900	4125	57035	-7.2	0.0	42.1	-7.9	-2,6	4.7
4137.5	900	4137.5	57040	-7.3	0.4	42.1	-7.8	-2.4	4.7
4150	900	4150	57034	-5,8	0.8	42.4	-9.8	-2.7	4,7
4162.5	900	4162.5	57033	-6.2	0,9	42.1	-9.3	-2.9	4.7
4175	900	4175	57037	-4.7	1.7	42.2	-8.2	-3.1	4.7
4187.5	900	4187.5	57043	-4.9	5.3	42.5	-7.5	-1.9	4.9
4200	900	4200	57036	-4.8	0.8	40.7	-8.3	-1.6	4.9
4212.5	900	4212.5	57035	-5.5	0.3	40.7	-8.6	-1.1	5.0
4225	900	4225	57035	-5.6	-0.9	41.0	-10.1	-1.9	5.1
4237,5	900	4237,5	57035	-4.9	-2.0	41.4	-10.9	-1.4	5.0
4250	900	4250	57037	-5.2	-3.3	41.8	-11.4	-1.1	5.1
4262.5	900	4262.5	57036	-5,3	-2.2	42.5	-10.3	-0.6	5.1
4275	900	4275	57033	-1.2	-2.0	42.8	-10.8	1.8	5.1
4287.5	900	4287.5	57035	-0.9	-3.0	42.8	-11.2	2.3	5.0
4300	900	4300	57037	-0.9	-5.0	43.4	-11,3	3.9	5.1
4312.5	900	4312,5	57037	-1.0	-4.0	43.4	-10.4	4.5	5.1
4325	900	4325	57038	0.2	-2.7	43.6	-11.3	4.9	5.1
4337.5	900	4337.5	57041	0.7	-0.8	43.5	-12.0	3.5	5.2
4350	900	4350	57040	0.4	0.0	42.6	-15.3	1.7	5.3
4362.5	900	4362.5	57035	-0.4	-0.6	42.6	-14.3	2.5	5.3
4375	900	4375	57033	0.5	0.2	42,7	-11.9	3.9	5.3
4387.5	900	4387.5	57035	2.1	1.6	43.0	-13.7	4.3	5.4
4400	900	4400	57034	1.4	1,8	42.4	-15.3	2.9	5.3
4412.5	900	4412.5	57035	-0.3	1.2	42 .1	-15.4	3.0	5.4
4425	900	4425	57036	-2.1	0.9	43.2	-14.1	3.2	5.4

()	(N	\sim	11 A.	1.1	,	١	6.7	()	\sim
Easting	Northing	# 1.	# 2.	# 3.	# 4 .	# 5.	# 6.	#7.	# 8.
4437.5	900	4437.5	57037	-0.2	2,1	44 . l	-12.9	4.7	5.4
4450	900	4450	57036	1.6	5.1	43.4	-12.3	6.2	5.5
4462,5	900	4462.5	57039	2.0	4.8	43.5	-12.7	5.8	5.5
4475	900	4475	57040	0.6	4.6	43.6	-13.8	5.1	5.6
4487.5	900	4487.5	57038	1.3	5.6	43.4	-14.5	4.5	5.7
4500	900	4500	57038	1.3	5.1	43.0	-13.7	4.1	5.7
4512.5	900	4512.5	57039	0.8	4.9	43.3	-14.3	4.6	5,8
4525	900	4525	57041	1.0	4.0	43.3	-17,6	2.1	5.8
4537.5	900	4537.5	57039	0.1	3.4	43.8	-18.0	1.6	5.7
4550	900	4550	57040	0.7	3.8	43.5	-20.1	0.8	5.8
4562.5	900	4562.5	57041	2.8	3,9	44.2	-19.2	0.2	5,8
4575	900	4575	57042	2.6	4.4	43.0	-19.4	-0.6	5,9
4587.5	900	4587.5	57041	1.8	3.3	42.3	-18.6	-0.8	5.9
4600	900	4600	57042	2.1	4.0	43,6	-18.4	-0.4	6.0
line 1050									
3600	1050	3600	57010	-4.4	-0.8	46,6	-2.5	7.7	7.8
3612.5	1050	3612.5	57009	-6.9	-2.1	45.1	-1.8	7.2	7.8
3625	1050	3625	57014	-8.3	-2.7	45.7	-0.7	7.5	7.8
3637.5	1050	3637.5	57009	-10.8	-3,9	47,9	-0,5	7.2	7.8
3650	1050	3650	57012	-11.0	-4.0	48.2	-1.7	6.9	7.8
3662.5	1050	3662.5	57015	-10.0	-3.4	49.1	-0.9	6.6	7.8
3675	1050	3675	57015	-10.2	-2.9	47.9	-0.9	6.3	7.8
3687.5	1050	3687.5	57015	-8 .9	-1.8	48.4	-0.3	6.1	7.8
3700	1050	3700	57016	-7.9	-0.5	48.6	-0.7	5.6	7,9
3712.5	1050	3712.5	57017	-5.7	1.3	48.6	-0.4	4.4	7.8
3725	1050	3725	57020	-6.6	2.0	48.5	-1.4	4.4	7.8
3737.5	1050	3737.5	57017	-6.5	3.0	48.3	-2.1	5.1	7.7
3750	1050	3750	57017	-5.8	3.2	48.6	-3.0	4,0	7,7
3762.5	1050	3762,5	57017	-6.8	3.1	48.5	-2.8	3.8	7,8
3775	1050	3775	57017	-7.0	2.4	48.5	-4.6	3.7	7.8

 \cap

()	1.5	1.2	4 N		,	`	1,	\sim	()	
Easting	Northing	# 1.	# 2.	#3.	# 4.	# 5,	# 6.	<i>#</i> 7.	# 8.	
3787.5	1050	3787.5	57016	-6.8	2.4	48 .0	-5.6	4.1	7.6	
3800	1050	3800	57015	-4.8	2.8	49.7	-4.2	4.4	7.6	
3812.5	1050	3812.5	57019	-3.7	3.6	49.2	-2.8	4.5	7.6	
3825	1050	3825	57017	-3.4	2.9	50.7	-3.2	4.8	7.6	
3837,5	1050	3837.5	57015	-1.3	4.2	48,5	-2.0	4.7	7,7	
3850	1050	3850	57015	-1,4	4.1	48.7	-3.7	3.8	7.7	
3862.5	1050	3862.5	57014	-3.1	2.7	49.4	-4.9	3.0	7.7	
3875	1050	3875	57014	-4.8	2.2	49.8	-7.0	2.0	7.7	
3887.5	1050	3887.5	57015	-1.8	3.6	48.1	-6.7	2.2	7.5	
3900	1050	3900	57021	-3.2	2,0	49.1	-7.6	1.3	7.5	
3912.5	1050	3912.5	57020	-4.3	2.7	48.1	-5.5	1.6	7.6	
3925	1050	3925	57019	-4.0	2.3	49.5	-5.7	1.4	7.5	
3937.5	1050	3937.5	57016	-5.6	1,3	49,0	-8.7	0.4	7.5	
3950	1050	3950	57013	-7.5	0.3	50.1	-7.7	0.5	7.5	
3962.5	1050	3962.5	57017	-8.4	-0.5	50.4	-7.4	0.7	7.5	
3975	1050	3975	57020	-9.5	-0.3	50.5	-6.7	0.8	7.6	
3987.5	1050	3987.5	57026	-10.8	-1.0	49.4	-6.5	0.0	7.6	
4000	1050	4000	57022	-10,4	-0,6	50,3	-6.0	0,3	7.7	
4012.5	1050	4012.5	57022	-8.7	1.3	50.7	-5.3	-0.2	7.7	
4025	1050	4025	57022	-8.6	0.8	50.4	-6.0	-0.6	7.7	
4037.5	1050	4037.5	57026	-8.7	0.4	50,3	-3,9	0,5	7.7	
4050	1050	4050	57026	-8.7	-0.3	50.0	-3.9	0.2	7.7	
4062.5	1050	4062.5	57028	-9.4	-1.4	50.6	-4.2	0.1	7.7	
4075	1050	4075	57022	-8.1	-0,8	50,6	-5.0	-0,3	7.7	
4087.5	1050	4087.5	57024	-8.5	-2 .1	50,9	-4.4	-1.3	7.6	
4100	1050	4100	57030	-9.3	-2.4	51.0	-5.5	-1.7	7.6	
4112.5	1050	4112.5	57029	-8.9	-1.8	50.7	-6.2	-1.4	7.6	
4125	1050	4125	57029	-7.5	-1.0	51.6	-4.1	-0.7	7.6	
4137.5	1050	4137.5	57031	-7.5	-0,8	51,8	-4,4	-1.0	7.7	
4150	1050	4150	57031	-7.0	-0.1	52.1	-3.8	-1.0	7,8	

 $\langle \cdot \rangle$

()	()	63	· 6	· • •	,	`		6 N	<. x
Easting	Northing	#1.	# 2 .	# 3.	# 4.	# 5.	# 6 .	# 7 .	# 8.
4162.5	1050	4162.5	57029	-5,6	1.2	52.3	-4.5	-1.1	7.8
4175	1050	4175	57029	-4.6	2.2	52.2	-4.3	-1.8	7.8
4187.5	1050	4187.5	57028	-4.8	2,5	51,8	-5.0	-2.2	7.8
4200	1050	4200	57027	-6.2	1,6	51.2	-5,5	-2.3	7.7
4212.5	1050	4212.5	57032	-6.5	0.8	51.3	-6.6	-2.6	7.7
4225	1050	4225	57034	-6.2	0.6	54.2	-8.5	-3,5	7.6
4237,5	1050	4237.5	57031	-3.9	2.1	52.1	-8.9	-3.3	7.6
4250	1050	4250	57034	-4.7	1.8	54.0	-11.4	-2.0	7.7
4262.5	1050	4262.5	57036	-2.1	2.2	54.2	-13.2	-2.3	7.7
4275	1050	4275	57032	-1.3	3.2	53.4	-13.9	-1.7	7.7
4287,5	1050	4287.5	57030	0.9	2.3	52.3	-15.0	-2.4	7.7
4300	1050	4300	57030	0.0	3,3	50,5	-14.8	-1.6	7.6
4312.5	1050	4312.5	57034	-1.7	0.7	49.5	-15,0	-1.3	7.6
4325	1050	4325	57033	-0.3	0.7	49.0	-16.1	-1.3	7,6
4337.5	1050	4337,5	57028	-5.3	-5,9	49,9	-19.7	-2.3	7.6
4350	1050	4350	57031	-6.5	-7.0	49.9	-21.7	-2.9	7.7
4362.5	1050	4362.5	57033	-6,3	-7.4	50,0	-19.1	-1.8	7.8
4375	1050	4375	57040	-4.3	-6.0	50.8	-16.5	-0.8	7.9
4387.5	1050	4387.5	57036	-3.5	-4.9	53.4	-15.2	-0,1	7,9
4400	1050	4400	57039	-1.5	-3.2	50,8	-14.0	0.5	7.8
4412.5	1050	4412.5	57040	2.5	-0.2	51.6	-12,7	0.4	7.8
4425	1050	4425	57036	5.4	2.7	51.4	-11.8	0.6	7.9
4437.5	1050	4437.5	57036	8.0	5,1	50,5	-11.5	0.9	7.9
4450	1050	4450	57035	8.7	6.2	49,3	-11.8	0.9	7.9
4462.5	1050	4462.5	57034	8.7	2.7	49.5	-13.0	-0.1	7.9
4475	1050	4475	57031	8.5	2.7	48.8	-14.1	-0.4	7.8
4487.5	1050	4487.5	57033	6,4	0.3	47.5	-13.2	-0.5	8.0
4500	1050	4500	57035	4.2	-1.3	47.5	-13.5	-0.6	8.0
4512.5	1050	4512.5	57032	3.5	-1.3	47.6	-13.8	-1.6	8.0
4525	1050	4525	57035	5.3	-0.7	46.7	-12.8	-1.1	7.9

 $f(\mathbf{y})$

Easting	Northing	# 1.	# 2 .	# 3.	# 4 .	# 5.	# 6.	# 7 .	# 8 .
4537.5	1050	4537.5	57039	1.8	-3.2	42,9	-14,3	-3.5	7.9
4550	1050	4550	57038	1.6	-4.4	43.4	-14.0	-4.6	7.9
4562.5	1050	4562.5	57036	-0.6	-5.6	43.3	-15.6	-4.4	7.8
4575	1050	4575	57040	0.0	-5.7	43.4	-14.2	-4.9	7.8
4587,5	1050	4587.5	57039	0.9	-6.2	44. l	-14.7	-6.1	7.7
4600	1050	4600	57038	-0.1	-6.8	42.3	-15.6	-7.1	7.7
4612.5	1050	4612.5	57043	-2.2	-7.9	44.5	-15.3	-6.8	7,6
4625	1050	4625	57042	-2.4	-7,4	44.3	-16,3	-7.5	7.6
4637.5	1050	4637.5	57042	-2.8	-8.1	44.6	-15.5	-8.1	7.6
4650	1050	4650	57042	-2.9	-7.7	42.7	-16.4	-8.4	7.5
4662.5	1050	4662.5	57043	-3.8	-7.5	45.3	-16,9	-8.9	7.0
4675	1050	4675	57042	-3,4	-8.1	44.0	-17.3	-8.9	6.9
4687.5	1050	4687.5	57042	-3.4	-6.3	45.5	-17.1	-7.6	6.9
4700	1050	4700	57049	-3.4	-6.0	45.8	-19.9	-7.8	6.7
line 1300									
3600	1300	3600	57016	5.6	-1.9	3.5	1.1	-2.3	3.6
3612.5	1300	3612.5	57017	3.3	-2.7	3.5	0.9	-1.1	3.6
3625	1300	3625	57016	2.7	-3.1	3.6	-0.1	-2.5	3.5
3637.5	1300	3637.5	57013	4.9	-1.7	3,6	0,9	-2,2	3,6
3650	1300	3650	57017	6.4	-1.9	3.6	2.3	-1.8	3.3
3662.5	1300	3662.5	57019	5.7	-1.8	3.6	0.4	-2.8	3.4
3675	1300	3675	57022	2.7	-3,3	3,3	-1.2	-3.4	3,3
3687.5	1300	3687.5	57020	0.5	-5.3	3.6	-3.2	-3.0	3.1
3700	1300	3700	57021	-1.3	-7.7	3.4	-4.4	-3.5	3.0
3712.5	1300	3712.5	57014	-2.2	-7.4	3.4	-4.2	-5.7	3.2
3725	1300	3725	57015	-0.4	-6.2	3.5	-2,8	-4.9	2.8
3737.5	1300	3737.5	57018	2,9	-4.9	3.4	-1.9	-1.7	2.8
3750	1300	3750	57020	3.3	-1.9	3.4	-0.2	-0.1	2.7
3762.5	1300	3762,5	57015	3.2	-1.5	3.5	1.3	1.2	2.6
3775	1300	3775	57014	5.1	-2.8	3.6	1.4	2.0	2.7

2 **x**

1.

1.5

· .

 γ

 $\mathbb{Z} X$

15

1.1

 $X_{\rm eff}$

()	4.5	2 N.	4 x	()	,	×	1.5	4 N	\sim	
Easting	Northing	# 1.	# 2.	# 3.	# 4.	# 5.	# 6.	# 7 .	# 8 .	
3787.5	1300	3787,5	57019	4.1	0.5	3.6	1.0	2.5	2.6	
3800	1300	3800	57019	4.9	1.0	3.8	1,9	4.9	2.5	
3812.5	1300	3812.5	57020	5.7	0.2	3,5	1.7	3.8	2.4	
3825	1300	3825	57019	3.1	1,8	3.7	3.3	3.3	2.8	
3837.5	1300	3837.5	57018	-0.4	0.0	3.7	-0.4	2.7	2.5	
3850	1300	3850	57014	-1.0	-0.8	4.2	-3.6	3.5	2.5	
3862.5	1300	3862.5	57013	-1.3	0.0	4 .1	-2.4	2.1	2.4	
3875	1300	3875	57015	-4.3	-0.1	4.0	-5,1	4.2	2.6	
3887.5	1300	3887.5	57019	-5.5	-1.0	4.0	-4.4	3.3	2.4	
3900	1300	3900	57018	-2.9	0.6	4.1	-2.4	3.9	2.4	
3912.5	1300	3912.5	57023	-2.2	1.3	4.0	-4.1	4.0	2.4	
3925	1300	3925	57018	-3.8	1.3	4.0	-4.3	3.0	2.5	
3937.5	1300	3937.5	57036	-5.6	-1.1	4.2	-6 .7	0.4	2.6	
3950	1300	3950	57018	-2.8	0.1	4.2	-3.8	1.6	2.5	
3962.5	1300	3962.5	57021	-1.5	0.4	4.2	-4.4	3.1	2.4	
3975	1300	3975	57022	0.0	1.0	4.2	-4.0	2.3	2.4	
3987.5	1300	3987.5	57021	0.7	1.9	4.2	-3.1	2.4	2.4	
4000	1300	4000	57025	1,7	1.4	4.2	-4.0	3.5	2.4	
4012.5	1300	4012.5	57024	1.8	0.8	4.3	-4.7	3.1	2.5	
4025	1300	4025	57026	1.8	0,3	4.2	-4.5	0,8	2.4	
4037.5	1300	4037.5	57026	2.0	0.7	4.2	-5.1	1.6	2.6	
4050	1300	4050	57031	0.0	-2.0	4.3	-4.8	0.0	2.6	
4062.5	1300	4062.5	57030	1.2	-1.1	4.3	-5.0	-0.3	2.7	
4075	1300	4075	57034	1.2	-2.0	4.4	-4.5	-0.5	2.6	
4087.5	1300	4087.5	57032	0.0.	-2.9	4.3	-6.3	0.8	2.5	
4100	1300	4100	57029	-0.6	-1.6	4.4	-6.2	. 0.1	2.6	
4112.5	1300	4112.5	57032	-2.2	-2.8	4.3	-7,6	-0.5	2.6	
4125	1300	4125	57032	-0.6	-2.6	4.4	-5,9	0.4	2,6	
4137.5	1300	4137.5	57036	-1.6	-2.2	4,3	-5.7	0.1	2.6	
4150	1300	4150	57034	-1.2	-2.8	4.2	-9.1	-1.1	2.7	

 \sim

÷

()	();		1.	1 N.	1	•	1 ⁹⁹ - 2	\sim	0	
Easting	Northing	# 1.	# 2.	# 3.	# 4 .	# 5.	# 6.	# 7.	# 8.	
4162.5	1300	4162.5	57033	-4.4	-5,3	4.2	-10.4	-1.0	2.7	
4175	1300	4175	57033	-4.3	-5.4	4.4	-9.9	-1.8	2.8	
4187.5	1300	4187.5	57034	-4.2	-5,9	4.4	-8.7	-2.5	2.9	
4200	1300	4200	57035	-4.5	-6.1	4.5	-9.1	-1.3	2.9	
4212.5	1300	4212.5	57037	-5.0	-5.3	4.5	-10.5	-2.7	3.3	
4225	1300	4225	57037	-5.4	-6.0	4.5	-10.6	-0.4	3,1	
4237,5	1300	4237.5	57030	-6.1	-4.9	4.4	-10.2	-1.3	3.1	
4250	1300	4250	57035	-7.7	-5.4	4.3	-11.9	-1 .7	3.1	
4262.5	1300	4262.5	57032	-9.1	-7.6	4.4	-12.2	-1.5	3.3	
4275	1300	4275	57036	-11.8	-6.4	4.4	-18.9	-6.1	3.0	
4287.5	1300	4287.5	57033	-11.8	-8.2	4.3	-13.4	-2.4	3.2	
4300	1300	4300	57034	-11.6	-6,1	4.3	-11.3	-3.1	3.3	
4312.5	1300	4312.5	57030	-10.2	-4.6	4.3	-8.2	-3.1	3.4	
4325	1300	4325	57031	-10.9	-5.2	4.4	-8.5	-2.2	3,6	
4337.5	1300	4337.5	57035	-8.7	-5,3	4.4	-8.5	-3.3	3.5	
4350	1300	4350	57038	-7.8	-4.3	4.3	-4.7	-2.9	3.6	
4362.5	1300	4362.5	57042	-5.1	-3.9	4.2	-4.1	-3.2	3.5	
4375	1300	4375	57038	-6.8	-7.3	4.3	-4.0	-2.9	3.7	
4387.5	1300	4387,5	57044	-3.8	-3.5	4.4	-1.5	-1.9	3.6	
4400	1300	4400	57052	-3.4	-3,9	4,5	-1,9	-2.1	3.8	
4412.5	1300	4412.5	57043	-5.5	-1.2	4.2	-1.6	-1.4	3.9	
4425	1300	4425	57042	-4.6	-2.9	4.2	-1.5	-1.5	3.8	
4437,5	1300	4437.5	57041	-3.2	-4.2	4.2	-1.2	-1.6	4.0	
4450	1300	4450	57035	-1.8	-2.7	4.2	1.2	-1.0	4.0	
4462.5	1300	4462.5	57034	-0.2	-2.6	4.2	2.2	-1.2	4.0	
4475	1300	4475	57036	-0.8	-3.3	4.3	3.2	-2.4	4.0	
4487.5	1300	4487.5	57033	1.0	-2,9	4.3	4,0	-1,5	4.0	
4500	1300	4500	57034	1.3	-3.2	4.3	3.7	-1.9	4.0	
4512.5	1300	4512.5	57038	1.8	-3.4	4.4	4.2	- 1.7	4.2	
4525	1300	4525	57036	1.2	-2.2	4.4	3.0	-1.4	4.3	

.

	\sim	7 N	4 N	1.3		N.		(N	\sim
Easting	Northing	# 1.	# 2 .	#3.	# 4 .	# 5.	# 6.	# 7 .	# 8 .
4537.5	1300	4537.5	57040	1.6	-3.1	4.2	2.7	-1.7	4.1
4550	1300	4550	57036	1.3	-3.5	4.3	2.1	-1.6	4.3
4562.5	1300	4562.5	57038	2.0	-3.8	4,3	2.7	-1.0	4.2
4575	1300	4575	57034	3.0	-3.6	4.2	2.8	-1.1	4.2
4587.5	1300	4587.5	57036	1.3	-4.0	4.3	0.0	-2.3	4.3
4600	1300	4600	57038	1.2	-2.1	4.3	1.6	-2.7	4.4
4612.5	1300	4612.5	57036	2.3	-2.0	4.3	0.0	-1.5	4.5
4625	1300	4625	57041	1.1	-0.9	4,4	1.1	-0.4	4.7
4637.5	1300	4637.5	57043	2.6	-0.4	4.5	2.4	0.2	4.8
4650	1300	4650 /	57038	1.6	0.1	4.7	1.8	0.5	4.7
4662.5	1300	4662.5	57040	1.6	0.1	4.5	1.2	0.3	4.9
4675	1300	4675	57039	-0.2	0.7	4.5	0.3	1.1	4.9
4687.5	1300	4687.5	57038	0.1	0.2	4.6	0.4	1.2	5.0
4700	1300	4700	57039	2.2	1.2	4.8	2.2	1.2	5,3
4712.5	1300	4712.5	57038	1.3	0.2	4.8	0.6	1.6	5.3
4725	1300	4725	57042	-0.5	0.8	5.0	-0.3	0.7	5.6
4737.5	1300	4737.5	57040	-3.3	-0.7	5,2	-1.8	-0.4	5.8
4750	1300	4750	57042	-0.1	2.1	5.2	0.1	1.7	5.9
line 1500									
3600	1500	3600	57009	7.8	3.2	3.4	-5.6	2.3	2.6
3612.5	1500	3612.5	57008	16.2	4.5	3.5	1.7	4.7	2.6
3625	1500	3625	57013	16.5	4.7	3.7	4,9	4.1	2.8
3637.5	1500	3637.5	57015	15.6	2.7	3.6	3.9	1.6	2.7
3650	1500	3650	57012	12.0	2.8	3.6	0.6	3.2	2.7
3662.5	1500	3662.5	57013	11.6	1.5	3.6	4.7	4.3	2.6
3675	1500	3675	57013	8.1	0.2	3.6	0,3	3.1	2.6
3687.5	1500	3687.5	57004	2.7	1.0	3,6	-4.8	3.5	2.6
3700	1500	3700	57008	8,8	-0.8	3.7	3.0	3.3	2.6
3712.5	1500	3712.5	57008	6.4	-0.8	3.7	-1.5	3.8	2.6
3725	1500	3725	57007	6.5	0.3	3.9	-1.9	3.1	2.5

Ì

 \sim

Easting	Northing	# 1.	# 2.	# 3.	# 4.	# 5.	# 6.	# 7 .	# 8 .	
3737.5	1500	3737.5	57008	2.7	-0.5	3.9	-5.3	3.8	2.5	
3750	1500	3750	57008	6.6	-0.9	4.0	-2.0	3.6	2.6	
3762.5	1500	3762.5	57010	6.3	-2.7	4.0	-1.4	0.2	2.5	
3775	1500	3775	57014	8.5	-2.4	4.1	-0.4	0.8	2.5	
3787.5	1500	3787.5	57012	4.1	-4.2	4.0	-2.6	-0.5	2.5	
3800	1500	3800	57014	5,9	-3.3	3.9	-2.1	1.6	2.5	
3812.5	1500	3812.5	57018	6,1	-1.4	3.9	-3.1	2.1	2.6	
3825	1500	3825	57017	6.9	-0.3	4.0	0.0	1.3	2.5	
3837.5	1500	3837.5	57014	6.3	0.1	3,9	-2.8	3.1	2.5	
3850	1500	3850	57014	5.2	0,5	4.0	-3.1	2.6	2.5	
3862.5	1500	3862.5	57013	1,5	-0.4	4.0	-5.8	2.8	2.5	
3875	1500	3875	57013	-1.0	-0.6	4.0	-8.1	1.3	2.5	
3887.5	1500	3887.5	57010	0.2	-1.9	4.1	-5.4	0.9	2.6	
3900	1500	3900	57022	0.1	-2.8	4.2	-6.2	-1.0	2.6	
3912.5	1500	3912.5	57011	-1.4	-2.2	4.3	-9.2	0.0	2.7	
3925	1500	3925	57014	2,3	-1.0	4.4	-5.7	0.4	2.7	
3937.5	1500	3937.5	57013	0.0	-1.8	4.5	-9.4	-0.2	2.7	
3950	1500	3950	57012	3.8	0.1	4.3	-6.2	1.0	2.7	
3962.5	1500	3962.5	57015	3.7	1.0	4.3	-7.3	1.7	2.6	
3975	1500	3975	57012	4.7	2.4	4.2	-7.2	2.3	2.6	
3987.5	1500	3987.5	57013	4.8	1.4	4.2	-6.2	1.1	2.7	
4000	1500	4000	57015	4.3	0.7	4.2	-9.9	1.3	2.6	
4012.5	1500	4012.5	57018	6.1	0.4	4.2	-6.6	0.8	2.7	
4025	1500	4025	57017	2.4	-0.3	4.1	-9.2	1.0	2.7	
4037.5	1500	4037.5	57023	0.9	0.6	4.2	-13.0	1.1	2.9	
4050	1500	4050	57019	3.6	0.3	4.2	-11.4	1.3	2.8	
4062.5	1500	4062.5	57018	1.4	0.6	4.2	-12.6	2,3	2.7	
4075	1500	4075	57019	2.4	0.3	4.3	-11,6	1.8	2.8	
4087.5	1500	4087.5	57020	6.7	0,6	4.3	-9.2	0.0	2.8	
4100	1500	4100	57016	1.9	-3,0	4.4	-11.9	-1.1	3.0	

(N

1)

Easting	Northing	# 1.	# 2 .	#3.	# 4.	# 5.	# 6 .	#7.	# 8 .
4112.5	1500	4112.5	57019	0.4	-1.6	43	-12.8	07	29
4112.5	1500	4112.5	57024	2.0	-1.0	41	-12.3	-0.4	3.0
4125	1500	4125 A127 5	57024	2.0	-0.3	4.2	-13.4	13	3.0
4157.5	1500	4137.3	57022	-2.7	0.5	4.2 4.2	-13,4	1.5	20
4150	1500	4150	57024	4.7	0,5	4.2	-7,1	1,7	2.7
4102.5	1500	4102.3	57024	6.7	-0.4	4,5	-0,1	0.4	2.0
4175	1500	41/3	57020	0.0	-2.1	4.4	-4.0	-0.4	5.0 7 1
4187.5	1500	4167.5	57032	1.0	-2.3	4.4	-0.4	-0.3	2.1
4200	1500	4200	57031	-0.3	-3,5	4.5	-0./	-0.7	3.3
4212.5	1500	4212.5	57029	1.8	-4.5	4,5	-8,8	-2.1	2,2
4225	1500	4225	57028	2.0	-5.1	4.2	-7.3	-3.4	3.2
4237.5	1500	4237.5	57026	-2.3	-0.7	4.2	-11.3	-2.9	3.3
4250	1500	4250	57024	1.0	-0,3	4.2	-8.0	-2.8	3.3
4262.5	1500	4262,5	57030	-0.6	-6.6	4.2	-8.0	-2.0	3,3
4275	1500	4275	57027	-1.3	-6.8	4.1	-9.9	-2.1	3.4
4287.5	1500	4287.5	57029	2.1	-6.5	4,1	-4.7	-1.6	3.4
4300	1500	4300	57031	-0.2	-6.6	4.2	-8.0	-2.3	3.5
4312.5	1500	4312.5	57032	4.7	-6.1	4.0	1.2	-3.1	3.4
4325	1500	4325	57028	2.7	-5.2	3.9	-1.9	-3.3	3,5
4337.5	1500	4337.5	57028	3.1	-5.5	4.0	-1.3	-2.0	3.5
4350	1500	4350	57027	-2.9	-4.5	4.0	-6.1	-2.6	3.7
4362.5	1500	4362.5	57025	1.2	-6.0	4.0	-2.2	-2.9	3,6
4375	1500	4375	57028	-5.9	-6.0	4.0	-12.6	-1.7	3.6
4387.5	1500	4387.5	57027	-4.0	-4.1	4.0	-4.8	-0.4	3.7
4400	1500	4400	57027	-6.2	-2.4	4.0	-6.0	0.0	3.7
4412.5	1500	4412.5	57029	-8.6	-6.3	4.1	-10.2	-2.4	4.0
4425	1500	4425	57026	-5.6	-6.3	4 1	-7.5	-3.1	4.1
4437.5	1500	4437.5	57027	-10,8	-6.4	4.1	-14.4	-4.9	4.2
4450	1500	4450	57029	-5.6	-6,5	4.1	-6.0	-4.4	4.3
4462.5	1500	4462.5	57031	-7.6	-6.2	4.1	-7.8	-3.1	4.3
4475	1500	4475	57031	-3.7	-4.6	4.1	-3.7	-3.5	4.2

i

 $(\mathbf{y}_{1}, \mathbf{y}_{2}) = (\mathbf{y}_{1}, \mathbf{y}_{2}) + (\mathbf{y}_{2}, \mathbf{y}_{2})$

43	()	(N		1	,	`	* 、	<u></u>	• • • •	\cap
Easting	Northing	# 1.	# 2.	# 3.	# 4 .	# 5.	# 6.	# 7.	# 8 .	
4487.5	1500	4487.5	57032	-5.6	-4.0	4.0	-4.9	-1.8	4.4	
4500	1500	4500	57027	-14.0	-4.3	4.0	-15.9	-2.7	4.5	
4512.5	1500	4512.5	57028	-11.2	-2.0	4.0	-12.4	-0,5	4.5	
4525	1500	4525	57028	-6.4	-1.4	4.0	-7.1	-0.4	4.5	
4537.5	1500	4537.5	57025	5.8	-1.5	4.0	4.1	0.2	4.7	
4550	1500	4550	57025	1.6	0.0	4.0	-1.4	-0.3	4.8	
4562.5	1500	4562.5	57026	-2.7	-1.3	4.0	-6.7	-0.4	4.8	
4575	1500	4575	57032	7.0	-1.5	4.0	4.8	0,0	5.0	
4587.5	1500	4587.5	57029	3,0	-1.1	4.1	0.1	-0.3	5.1	
4600	1500	4600	57030	-4.5	-1.7	4.2	-7.5	-1.1	5.2	
4612.5	1500	4612.5	57030	-4.8	-2.6	4.2	-10.2	-1.4	5,3	
4625	1500	4625	57025	1.6	0.0	4.2	-2.9	0.3	5.6	
4637.5	1500	4637.5	57028	5.2	0.1	4.4	0.4	0.7	5.7	
4650	1500	4650	57037	5.2	-1.3	4.4	2.3	0.3	5.8	
4662.5	1500	4662.5	57033	3.2	-0.6	4.4	0.0	-0,1	5.8	
4675	1500	4675	57034	5.2	-2.9	4.4	0.8	-1.2	5.9	
4687.5	1500	4687.5	57036	4.6	-2.3	4.3	0.0	-0.7	5.9	
4700	1500	4700	57037	4.5	-2.5	4.5	-0.8	-1.0	6.0	
4712.5	1500	4712.5	57038	3.9	-3.9	4.5	-2.0	-2.0	6.1	
4725	1500	4725	57036	0.2	-5.5	4.5	-3.6	-3.3	6.2	
4737,5	1500	4737.5	57038	0.7	-5.5	4.6	-4.8	-4.9	6.2	
4750	1500	4750	57041	-2.0	-5.7	4.5	-4.5	-5.4	6.5	

APPENDIX IV

C

ς

 \langle

. .

5

÷.

--

k.

DATA LISTING

WEST GRID

CANAMERA GEOLOGICAL LTD. Data Listing

1)

Area:	ESKAY CREEK, B.C.	Current File Name:	HAGSDATW.GPH
Grid:	HAGS GROUP (West Grid)	From File Name:	HWZ.XYZ
Date:	December, 1993		

 $\epsilon \infty$

 $\mathcal{L}_{\mathcal{M}}$

 $< \gamma$

ı.

 $\sim \infty$

 \sim

 $\mathbf{\hat{}}$

 \cap

INSTRUMENT TYPE: EDA Omni Plus VLF-EM/Magnetometer System

(Line & Station + = Northings and Eastings, - = Southings and Westings)

	DATA	TYPE(S):			DATA D	ETAILS:						
	#2. To	tal Field Ma	gnetic Vali	ues Correc	eted total m	agnetic fie	ld					
	#3. VI	F-EM In-Ph	ase Value	s Cutler	Transmitte	r - facing e	east					
	#4. VI	F-EM Quad	lrature	Cutler	Transmitte	r - facing e	east					
	#5. VI	LF-EM Field	Strength	Cutler	total field	strength						
	#6, VI	F-EM In-Ph	nase Value	s Annap	olis Transp	nitter - faci	ng east					
	#7. VI	F-EM Ouad	irature	Annap	olis Transn	nitter - faci	ng east					
	#8. VI	LF-EM Field	Strength	Annap	olis total fi	eld strengt	 h					
			0	1			-					
E	asting	Northing	#1.	# 2.	# 3 .	# 4 .	# 5.	# 6.	#7.	# 8.		
	-	Š.	tation									
line	e 200											
	575	200	537.5	56787	-14.7	-6.4	4.6	0.0	-7.6	1.4	2.45	0
	587.5	200	550	56787	-16.4	-6.4	4.7	0.0	-10.3	1.7	2.62	0
	600	200	600	56791	-14.4	-4.9	4.7	0.0	-6.4	0.9	2.45	0
	612.5	200	612.5	56801	-13.0	-2,7	4.6	0,0	-7.5	3.0	2.36	0
	625	200	625	56803	-10.8	-0.8	4.5	0.0	-4.5	3.2	2.32	0
	637.5	200	637.5	56821	-11.4	0.1	4.5	0.0	-6.1	1.6	2.39	0
	650	200	650	56812	-10.9	-0.2	4.7	0.0	-6.8	2.0	2,46	0

s.	1)	$I_{\rm ex}$		< N	• >	. · ·)	2 N		63	()	<u>(</u>)
Easting	Northing	# 1. Station	# 2 .	#3.	# 4 .	# 5.	# 6 .	# 7 .	# 8.			
662.5	200	662,5	56821	-10.8	1.6	4.7	-3.8	2.1	2.62			
675	200	675	56849	-11.1	-0.1	4.7	-4.4	1.4	2.63			
687.5	200	687.5	56840	-8.0	2.5	4.7	-3.9	1.6	2,68			
700	200	700	56840	-7.7	2.0	4.8	-2.1	1.9	2.72			
712.5	200	712.5	56846	-8.9	1,1	4.8	-2.1	2.0	2.73			
725	200	725	56881	-8.1	0.4	4.9	-2,3	0.9	2.73			
737.5	200	737.5	56843	-8,3	0.5	4.9	-1.1	1.8	2.75			
750	200	750	56842	-8.3	-0.6	4.8	-1.4	1.7	2.69			
762.5	200	762.5	56844	-8.7	-0.8	4.8	-3.0	3.0	2.57			
775	200	775	56844	-8.6	0.1	4.8	-4.1	1.9	2.58			
787.5	200	787,5	56850	-9,7	1.0	4.9	-3.5	2.1	2.58			
800	200	800	56851	-9.4	1.3	4.9	-4.4	0.2	2.64			
812.5	200	812.5	56853	-9.9	1.2	5.0	-8.2	1.0	2.63			
825	200	825	56857	-11.2	0.0	5.0	-8.8	0.8	2.71			
837.5	200	837.5	56860	-9.5	1.9	5.0	-6.7	0.9	2.66			
850	200	850	56864	-8,5	2.7	5.0	-7.7	1.1	2.73			
862,5	200	862.5	56865	-3.8	3.0	5.0	-4.3	1.6	2.77			
875	200	875	56866	-6.2	2.9	5.1	-5,6	0.4	2.78			
887.5	200	887.5	56873	-9.4	0.3	5.1	-8.1	0.0	2.82			
900	200	900	56873	-10.5	0.0	5.1	-7.9	0.1	2.83			
912.5	200	912.5	56879	-12.6	0.3	5.1	-9.4	-1.0	2.86			
925	200	925	56879	-14.2	-0.9	5.2	-8 .7	0.3	2,87			
937,5	200	937.5	56877	- 17.0	-2.4	5.1	-10.7	0,0	2.93			
950	200	950	56878	-19.2	-4.4	5.0	-12.5	-0.4	2.92			
962.5	200	962.5	56 877	-16.7	-2.3	5.0	-11.3	0.6	3.02			
975	200	975	56884	-16.8	-1.9	4,9	-11.2	0.0	3.11			
987.5	200	987.5	56885	-18.6	-4.3	4.9	-12.5	-0.9	3.22			
1000	200	1000	56888	-16.6	-3.6	4.8	-12.3	0,0	3.16			
1012.5	200	1012.5	56890	-15.5	-2.8	4.8	-10.8	-0.2	3.15			
1025	200	1025	56888	-15.2	-2.5	4.8	-9.4	-0.7	3.32			

	(γ)	(X)		C \	Ċ,	÷	Y.	<u>C</u>	8 Y	()	()	\cap
Easting	Northin	g # 1. Station	# 2 .	# 3.	# 4 .	# 5.	# 6.	# 7.	# 8.			
1037.5	200	1037.5	56889	-11.9	-1.8	4.8	-7.6	0.0	3.23			
1050	200	1050	56891	-12.4	-1.7	4.8	-8.4	0.2	3.25			
1062.5	200	1062.5	56898	-11.6	-1.9	4,8	-6.7	0.4	3,38			
1075	200	1075	56899	-9.5	-1.7	4.7	- 6.4	0.4	3.25			
1087.5	200	1087.5	56895	-7.2	-0.3	4.6	-4.2	1.0	3.33			
1100	200	1100	56892	-6.6	1.2	4.7	-2.9	1,4	3.25			
1112.5	200	1112.5	56897	-4.0	2.4	4.7	-2.0	1.7	3.33			
1125	200	1125	56901	-4.9	0.6	4,8	-3.3	0.4	3.33			
1137.5	200	1137.5	56907	-5.1	0.0	4.9	-3.3	0.5	3.42			
1150	200	1150	56910	-6.2	0,2	4.9	-3.9	0,0	3.4			
1162.5	200	1162,5	56917	-6,3	-1.1	5.1	-5.2	-0.2	3.47			
1175	200	1175	56913	-5.6	-1.3	5.1	-4.8	-0.4	3,57			
1187.5	200	1187.5	56918	-7.0	-2,6	5.3	-4.1	-1.4	3.59		·	
1200	200	1200	56918	-8,5	-3.3	5.3	-5.8	-2.9	3.59			
1212.5	200	1212.5	56916	-9.5	-4.7	5.3	-7.2	-4.0	3,58			
1225	200	1225	56908	-6.4	-2.4	5.2	-5.0	-2.2	3.6			
1237.5	200	1237.5	56906	-3.8	-1.6	5,3	-4.0	-1.9	3.72			
line 400												
537,5	400	537,5	56740	-12.2	-8.3	5.8	-8,5	-1.7	3.22			
550	400	550	56752	-11.9	-7.2	5,9	-8.8	-2.5	3.34			
562.5	400	562.5	56846	-11.0	-8.3	5.9	-7.9	-3.0	3.37			
575	400	575	56943	-11.3	-6.0	6.0	-9.4	-1.4	3.54			
587.5	400	587.5	56913	-12.7	-6.8	6.1	-10.9	-2.8	3.64			
600	400	600	56874	-13.7	-6.3	6.2	-10.0	-1.4	3,79			
612.5	400	612.5	56885	-14.8	-5.7	6.3	-10.0	-0.7	3.86			
625	400	625	56876	-15.8	-4.5	6.4	-10.0	-1.2	3.91			
637.5	400	637.5	56867	-16.1	-5.5	6.3	-10.0	-1.0	3,95			
650	400	650	56839	-17.4	-5.8	6.2	-9.7	-1.0	4,06			
662.5	400	662.5	56818	-17.5	-4.9	6.0	-10.8	-1.4	4.05			
675	400	675	56850	-18.9	-6.3	6.0	-10.7	-3,1	3.98			

-

Easting	Northing	# 1. Station	# 2 .	# 3.	# 4 .	# 5 .	# 6.	<i>#</i> 7.	# 8 .
687.5	400	687.5	56873	-20.2	-5.6	6.0	-12.4	-1.6	3.96
700	400	700	56850	-22.3	-4.9	5,8	-12.9	-2.4	3.91
712.5	400	712.5	56824	-22.8	-4.6	5,8	-13.1	-3.4	3.99
725	400	725	56758	-22.9	-6.2	5,8	-14.0	-3.9	3.98
737.5	400	737.5	56772	-23.3	-4.3	5.7	-13.7	-3.9	3,88
750	400	750	56808	-21.9	-4.2	5.6	-14.0	-3.7	3.92
762.5	400	762.5	56802	-21.7	-3.2	5.7	-13,9	-2.5	4.05
775	400	775	56822	-22.2	-2.6	5.7	-16.5	-1.6	4.14
787.5	400	787.5	56811	-22.5	-2.8	5.8	-17.9	-2.0	4.29
800	400	800	56845	-22.1	-2,7	5.7	-18.3	-3.0	4,27
812.5	400	812.5	56820	-20.2	-0.4	5.6	-17.0	-1.1	4.29
825	400	825	56841	-17.2	0.4	5,6	-15.6	-0.3	4.38
837.5	400	837.5	56841	-16.7	0,9	5.6	-14.5	-0.5	4.36
850	400	850	56844	-15,4	1.0	5.7	-15,3	-0.3	4.38
862.5	400	862.5	56846	-14.6	1.2	5.7	-15.2	0.0	4.44
875	400	875	56852	-9.4	3.5	5.7	-11.2	2.1	4.5
887.5	400	887.5	56851	-4.0	6.8	5,7	-7.8	4 .1	4.6
900	400	900	56855	1.5	9.2	5.9	-3.8	6.6	4.69
912.5	400	912.5	56865	0.8	9.2	6.3	-5,8	6.0	4.97
925	400	925	56868	-1.2	7.6	6,5	-6.4	5.2	5.01
937.5	400	937.5	56871	-1.9	6,5	6.7	-6.4	4.1	5.17
950	400	950	56873	-2.7	4.0	6.8	-3.8	3.6	5.42
962.5	400	962.5	56879	-1.8	3.9	6,9	-1.4	4.0	5.5
975	400	975	56880	-0.4	5,6	7.0	0.6	5.6	5,49
987.5	400	987.5	56884	-1.0	4.6	7.0	0.4	4.6	5.4
1000	400	1000	56887	-4.0	2.3	7.0	-3.7	2.2	5.44
1012.5	400	1012.5	56886	-3.0	3.1	7,0	-3.2	2.7	5.53
1025	400	1025	56888	-2.3	2.6	7.1	-2.9	2.2	5.55
1037.5	400	1037.5	56890	-3.3	2.4	7.1	-3.5	0.5	5,53
1050	400	1050	56893	-2.3	1.5	7.1	-3.2	0,0	5,58

 $\mathbf{O} = \mathbf{O} =$

Easting	Northing	# 1. Station	# 2 .	#3.	# 4 .	# 5.	# 6.	# 7 .	# 8 .
1062.5	400	1062.5	56897	-3.0	0.8	7.2	-3.7	-0.5	5.64
1075	400	1075	56896	-3,5	-0.4	7.2	-3.2	-2.0	5.8
1087.5	400	1087.5	56900	-4.4	-1.9	7.2	-3.6	-2.8	5.84
1100	400	1100	56901	-4.5	-2.0	7.2	-3.2	-4.2	5.87
1112.5	400	1112.5	56905	-4.1	-3.9	7.2	-2.6	-5.7	5,83
1125	400	1125	56905	-4.2	-5.1	7.3	-1.1	-6.2	5,98
1137.5	400	1137.5	56908	-3.5	-5.3	7.3	-0.2	-5,3	5.92
1150	400	1150	56907	-3.7	-4.8	7.3	1.0	-4.9	5.94
1162.5	400	1162.5	56906	-2,4	- 6.6	7.2	1,6	-5.6	5.83
1175	400	1175	56906	-4.3	-8.6	7.2	0.6	-8.6	5,85
1187.5	400	1187.5	56907	-5.6	-10.9	7.2	-1.2	-10.7	5.87
1200	400	1200	56901	-5.3	-10.3	7.3	-0.2	-10.2	5.93
1212.5	400	1212.5	56911	-4.9	-10.4	7,3	-0.7	-10.1	5.86
1225	400	1225	56908	-5.9	-11.1	7.2	-0.5	-11.4	5.78
1237.5	400	1237.5	56912	-7.6	-11.2	7.2	-0.4	-10.7	5.82
1250	400	1250	56914	- 6.4	-12.8	7.1	-1.0	-12.0	5,73
1262.5	400	1262.5	56916	-7.9	-13.0	7.1	-0.8	-11.6	5.74
1275	400	1275	56915	-7.9	-12.7	7.0	-0.9	-11.6	5,51
1287.5	400	1287.5	56917	-8.3	-11.9	7.0	-2.1	-11.7	5.56
1300	400	1300	56917	-7.6	-12.4	6.9	-1.0	-11.7	5.67
1312.5	400	1312.5	56913	-7.6	-11.9	6,9	-0.7	-11.5	5,71
1325	400	1325	56911	-7.0	-10.6	7.0	-2.0	-11.6	5,715
line 0									
425	0	425	56775	-18.6	-9.7	11.1	-13.1	-11.3	6.3
437.5	0	437.5	56809	-14.4	-5.4	11.4	-12.3	-8.7	6,28
450	0	450	56818	-9.3	-3.1	11.4	-10.4	-5.6	6.3
462.5	0	462.5	56821	-9,8	-3.4	11.6	-10.1	-3.3	6.31
475	0	475	56796	-12,4	-4.2	11.8	-6.7	-1.4	6.22
487.5	0	487.5	56809	-10.1	-2.6	11.7	-7.8	-0.2	6.19
500	0	500	56808	-11.2	0.0	11.7	-7.5	0.4	6.08

Easting	Northing	# 1. Station	# 2 .	# 3.	# 4 .	# 5.	# 6 .	<i>#</i> 7.	# 8 .
512.5	0	512.5	56811	-11.6	-1.9	11.7	-7,3	-0.2	6.01
525	0	525	56817	-11.2	1.4	11.6	-8.3	1.8	5.88
537.5	0	537.5	56817	-11,3	2.0	11.7	-8,3	2.2	5.98
550	0	550	56823	-12.3	2.4	11.7	-9,1	4.1	5.97
562.5	0	562.5	56827	-13.7	5.4	11.6	-10.7	3.4	5,92
575	0	575	56834	-12.6	5.9	11.6	-10.2	3,6	5.97
587.5	0	587.5	56845	-12.1	2.0	11.4	-10.8	4.6	6.05
600	0	600	56847	-8.9	-1.3	11.6	-10.5	3.4	6.15
612.5	0	612.5	56851	-10.1	3.1	11.4	-10.0	3.6	6.22
625	0	625	56846	-6.3	0,6	11.4	-10.3	2.9	6.3
637.5	0	637.5	56858	-11.5	8.6	11.4	-10.2	1.7	6.16
650	0	650	56911	-4.4	-2.0	11.4	-7,0	2.5	6.16
662.5	0	662.5	56864	-3.8	8.2	11.4	-6.3	4.2	6.15
675	0	675	56848	-2.2	-0.8	11.6	-4.5	3.1	6.09
687,5	0	687.5	56857	-3.4	-1.4	11.9	-4.7	0.8	6.02
700	0	700	56867	-6.9	7.6	11.9	- 6.1	0.0	6
712.5	0	712,5	56870	-7.2	-2.4	11.9	-5,8	-0.6	6.05
725	0	725	56880	-7.9	-2.9	11.7	-5.1	0.6	6.27
737.5	0	737.5	56937	-6.4	-1.8	11.8	-4.3	0,6	6.2
750	0	750	56875	-6,0	5.2	11.7	-2.6	2.1	6.27
762.5	0	762.5	56884	-5.8	4.8	11.8	-1.8	3.1	6.29
775	0	775	56875	-6.3	-0.7	12.3	-3.2	1.9	6.34
787.5	0	787.5	56877	-7,8	-1.9	12.3	-3.0	1.1	6.35
800	0	800	56880	-6.8	-0.1	12.0	-2.3	2.5	6.31
812.5	0	812.5	56881	-6.6	3.0	12.0	-1.5	2.8	6,24
825	0	825	56890	-4.7	6.8	12.2	-1.4	2.8	6.32
837.5	0	837.5	56897	-2.9	9.3	12.2	-1.7	2.8	6.15
850	0	850	56906	-1.9	10.7	12.4	-1.3	2.6	6.12
862.5	0	862.5	56905	-2.8	10.4	12.6	-3.5	0.6	6.13
875	0	875	56906	-3.6	10.2	12.5	-4.7	-0.2	6.07

 $(X_{i}) = (X_{i}) = (X_{$

 $\langle C \rangle$

	5	13		1	Ϋ́,	()		τ. Έχ	* x	(`)	• \
Easting	; Northing	# 1. Station	# 2.	#3.	# 4 .	# 5.	# 6.	#7.	# 8.		
887.	5 0	887,5	56903	-3.6	5.5	12.3	-5.2	-2.0	6.13		
90	0 0	900	56907	-4.0	7.2	12.2	-3.8	-0.9	6.17		
912.	5 0	912.5	56909	-1.5	8.2	12.3	-2.1	1.0	6.16		
92	5 0	925	56906	0,1	7.5	12.2	-0.7	1.4	6.24		
937.	5 0	937.5	56909	0.0	5.9	12.2	0.1	1.5	6.23		
95	0 0	950	56914	2.6	8.1	12.1	0.1	1.4	6.26		
962.	5 0	962.5	56918	4.6	9,8	12.2	0.0	2.2	6.18		
97	5 0	975	56923	3,5	11.8	12.3	0.5	0.6	6.19		
987	5 0	987.5	56921	4.5	9.0	12,4	1.1	1.5	6.18		
100	0 0	1000	56921	3.2	10.1	12.7	1.2	1.5	6.11		
1012	5 0	1012.5	56925	4.2	9.5	12.8	2.9	1.5	6.15		
102	25 0	1025	56921	4,6	-3.9	12.9	2.5	1.0	6.03		
1037	5 0	1037.5	56925	3.8	-3.8	12.9	1.9	0.1	6.1		
105	50 0	1050	56923	1.9	4.1	12.9	1.8	0.8	6.17		
1062	5 0	1062.5	56931	2.9	6.0	12.9	2.2	1.3	6,18		
107	75 0	1075	56929	3.6	4,9	12.9	4.6	2,6	6.2		
1087	5 0	1087.5	56924	3,3	3.8	13.0	5.5	3.7	6.16		
110	0 0	1100	56924	2.9	4.2	13.0	6.1	4.4	6.11		
1112	5 0	1112.5	56921	3.5	-0.3	12.9	7.0	4.7	6.17		
112	25 0	1125	56927	2,7	3.0	12.9	7.7	5.0	6,13		
1137	5 0	1137.5	56930	3.1	4.2	12.7	7.0	5,0	6.12		
114	50 0	1150	56925	2.6	6.5	12.7	7.2	5.6	6.13		
1162	5 0	1162.5	56929	4.1	5.6	12.8	7.5	6.6	6.04		
113	75 0	1175	56923	4.0	5.4	13.0	9.3	8.4	6.02		
1187	75 Û	1187.5	56928	4.0	4.4	13.0	9.0	7.8	5.92		
12(0 0	1200	56925	3.2	1.3	13.0	8,8	5.7	5.86		
1212	5 0	1212.5	56927	3.0	0.6	13.1	10.5	5.9	5.9		
1212	25 O	1225	56932	2.9	0.9	13.0	10.2	4.5	6		
1237		1237.5	56933	3.5	0.2	13.0	11.7	5.0	5,9		
1237	50 0	1250	56930	3,9	0,0	12.9	10.3	4.9	5.79		

Easting	Northing	# 1. Station	# 2.	# 3 .	# 4 .	# 5 ₋	# 6.	# 7 ₋	# 8.
								4.0	5 50
1262.5	0	1262.5	56939	3.2	2.6	12.7	8.3	4.9	5.73
1275	0	1275	56936	4.7	2.7	12.9	7.7	5.4	5.72
1287.5	0	1287.5	56929	4.9	2.7	13.0	8.0	4.6	5.65
1300	0	1300	56933	5,7	1.3	13.1	6.5	5.1	5.61
1312.5	0	1312.5	56930	4.3	0.3	13.0	3.9	3.4	5.58
1325	0	1325	56935	3.2	0.0	13.3	1.7	3.5	5.57
1337.5	0	1337.5	56934	2.8	-0.2	13.4	0.9	3.9	5,54
1350	0	1350	56933	2.5	-0.8	13.6	-2.0	2.6	5.48
1362.5	0	1362.5	56935	-0.2	-1.1	13.8	-5.1	0,5	5.57
1375	0	1375							
line 100									
400	100	400	56762	-9.1	-23.9	12.1	-5.4	-2.1	6.79
412.5	100	412.5	56757	-12.2	-25.0	12.0	-9.8	-3.0	6.73
425	100	425	56762	-10.9	-27.1	11.7	-8.8	-3.3	6,72
437.5	100	437.5	56771	-9,9	-25.8	11.6	-8.1	-0.8	6.57
450	100	450	56774	-10.7	-25,3	11.6	-7.9	0.4	6,55
462.5	100	462.5	56788	-9.1	-20.0	11.6	-5.7	1.6	6.61
475	100	475	56792	-10.3	-18.7	11.6	-6.1	3.4	6.48
487.5	100	487.5	56798	-12.0	-16.3	11.6	-6.3	3.1	6.49
500	100	500	56802	-11.3	-14.7	11.4	-6.2	4.2	6.4
512.5	100	512.5	56816	-12.6	-14.2	11.6	-8.3	5.1	6.32
525	100	525	56812	-13.2	-16.2	11.7	-10.0	4.6	6.43
537.5	100	537.5	56816	-14.3	-13.4	11,8	-10.9	3,9	6.54
550	100	550	56824	-12.9	-13.3	12.0	-11.2	3.2	6.6
562.5	100	562.5	56829	-17.6	-14.6	11.8	-10.4	4.5	6.73
575	100	575	56833	-17.9	-12.8	11.7	-8.9	5.2	6,82
587.5	100	587.5	56835	-16,9	13.0	11.2	-8.8	4.3	6.75
600	100	600	56846	-15.7	-9.9	11.1	-9.6	3.2	6.72
612.5	100	612.5	56860	-11.8	-5.1	11.3	-8.2	3.3	6.72
625	100	625	56894	-9.9	-9.2	11.4	-8.4	2.8	6.69

(Y) = (Y)

Easting	Northing	# 1. Station	# 2.	#3.	# 4 .	# 5.	# 6.	<i>#</i> 7.	# 8.
637.5	100	637.5	56850	-10.1	-8.6	11.5	-8,3	1.5	6.58
650	100	650	56851	-10.1	12.6	11.7	-9.2	-0.8	6.54
662.5	100	662.5	56857	-12.0	-7.9	11.8	-8.4	-1.5	6.81
675	100	675	56866	-11.2	-7.3	12.1	-6,0	0.0	6.83
687.5	100	687.5	56879	-10.8	-13.8	12.3	-3.7	1.2	6,8
700	100	700	56874	-11.8	-14.3	12.1	-3.2	1.1	6.75
712.5	100	712.5	56864	-11.3	-14.4	11.7	-2.2	1.6	6.68
725	100	725	56861	-10.9	-11.2	11.6	-0.2	3.1	6.62
737.5	100	737.5	56856	-9.5	-9.0	11.8	1.0	4.0	6.61
750	100	750	56886	-8.8	-7.6	11.9	1.0	2.7	6.58
762.5	100	762.5	56904	-9.5	-8,0	12.0	-3.1	1.9	6.58
775	100	775	56913	-8.9	-8.4	11.9	-1.3	1.2	6.47
787.5	100	787.5	56903	-9,1	-6.8	11.8	-1.7	2.5	6.47
800	100	800	56858	-8.3	-4.0	11.6	-2.0	2.5	6.44
812.5	100	812.5	56879	-7.6	-3.3	11.7	-1.3	2.0	6,38
825	100	825	56882	-5.5	-1.1	11.8	-0.6	2.3	6.35
837.5	100	837.5	56884	-5.8	-2.8	11.9	-1.2	3.1	6.33
850	100	850	56885	-5.7	-1.4	11.9	-1.1	3.6	6.33
862.5	100	862.5	56888	-4.2	-1.8	12.0	0.5	4.1	6.41
875	100	875	56890	-4.5	-2.6	12.3	1.8	4.7	6.44
887.5	100	887.5	56892	-3.7	-4.9	12.1	1.8	5.2	6.46
900	100	900	56897	-3.2	-6.2	12.0	1.1	3.7	6.45
912.5	100	912.5	56892	-2.4	-5.0	11.8	2.3	3.2	6.42
925	100	925	56897	-1.0	-4.8	11.8	3.3	3.5	6,31
937.5	100	937.5	56898	-0.2	-1.4	11.7	2.0	2.1	6.35
950	100	950	56898	-0.5	-2.6	11.7	2.2	2.7	6.34
962,5	100	962.5	56901	-0.6	-1.7	11.9	2,5	1.9	6.41
975	100	975	56903	-0.6	-0.3	12.0	1.8	2.3	6.47
987.5	100	987,5	56906	0.0	-2.9	12.1	2.4	1.9	6,46
1000	100	1000	56908	0.2	-1.5	12.3	3.1	2.2	6.55

Easting	Northing	# 1. Station	# 2.	# 3.	# 4.	# 5.	# 6.	# 7 .	# 8 .
1012.5	100	1012.5	56905	-1.3	-5.4	12.4	3.3	3.1	6.56
1025	100	1025	56910	0.3	-3.6	12.5	4.9	3.1	6.53
1037.5	100	1037.5	56912	-0.1	-2.5	12.5	6.1	4.7	6.59
1050	100	1050	56913	0.1	-3.4	12.7	7.4	5.7	6.53
1062.5	100	1062.5	56913	1.8	-5,7	12.7	8.9	6.1	6.45
1075	100	1075	56912	0.6	-6.3	12.9	8.8	6.1	6,46
1087.5	100	1087.5	56913	0,0	-9.2	12.8	8.3	5.0	6.37
1100	100	1100	56914	-0.3	-10.4	12.8	8.3	3,9	6.4
1112.5	100	1112.5	56913	-1.1	-10.1	12.8	8.2	4.2	6.27
1125	100	1125	56912	-1.8	-9.4	12.5	7.3	4.5	6.28
1137.5	100	1137.5	56910	-2.3	-9.5	12.3	6.4	2.6	6.22
1150	100	1150	56899	0.4	-3.9	12.5	7.8	2,8	6.28
1162.5	100	1162.5	56904	1.6	-4.3	12.9	8,8	4.0	6,37
1175	100	1175	56903	0.0	-5.3	13.0	9.1	2.9	6.3
1187.5	100	1187.5	56912	-2.8	-6.7	12.8	4.9	0.4	6.18
1200	100	1200	56916	-1.4	-5.4	12.9	4.2	0.5	6.2
1212.5	100	1212.5	56926	-0.8	-4.6	13.2	5.4	0.2	6.3
1225	100	1225	56920	-0.8	-4.7	13.3	5.1	1.2	6.31
line 300									
550	300	550	56760	-27.2	-4.2	10.7	-24.6	-2.3	3.5
562.5	300	562.5	56761	-25.3	0.2	10.8	-28.0	-4.0	3.57
575	300	575	56766	-25.6	2.3	10.7	-30.7	-4.6	3.67
587.5	300	587.5	56766	-26.4	-0.1	10.9	-28.6	-2.8	3.56
600	300	600	56771	-26.7	0.6	11.1	-28.1	-2 .7	3.54
612.5	300	612.5	56778	-30,2	-2.2	11.1	-25.6	0.0	3,67
625	300	625	56775	-31.7	-1.0	10,9	-21.2	2.0	3.72
637.5	300	637.5	56862	-33.6	-1.8	10.7	-16.8	1.6	3.71
650	300	650	56832	-33.0	-1.5	10.5	-16.5	1.7	3.7
662,5	300	662.5	56804	-25.0	-28.2	10.2	-12.4	0.3	3.76
675	300	675	56831	-32,6	0.6	10.2	-10.2	1.8	3,54

.

Easting	Northing	# 1. Station	# 2 .	#3.	# 4 .	# 5.	# 6.	<i>#</i> 7.	# 8 .
687.5	300	687,5	56839	-23.4	-28.0	10.0	-8.9	2.1	3,62
700	300	700	56798	-22.9	-25.7	9,9	-7.5	1.8	3.56
712.5	300	712.5	56788	-26.5	8.3	10.1	-6.1	2.6	3.43
725	300	725	56847	-21.7	-22.0	9.8	-5.2	2.2	3,35
737.5	300	737.5	56815	-20.7	-20.2	9.9	-5.6	1.5	3.32
750	300	750	56821	-20.0	-18.1	9.9	-7.7	0.0	3.29
762.5	300	762.5	56821	-18.9	-16.7	9.8	-6.8	0.3	3.24
775	300	775	56825	-17.7	-16.4	9.7	-8.2	0.0	3,14
787.5	300	787.5	56840	-17.2	-9.8	9.7	-9.9	0,8	3.32
800	300	800	56836	-16.0	8,6	9.8	-8.5	0.3	3.42
812.5	300	812.5	56854	-13.6	9.9	10.0	-10,6	0.7	3.41
825	300	825	56858	-13.7	-4.9	10.0	-10.7	-0.2	3,28
837.5	300	837.5	56849	-12.0	-2.8	10.2	-8.6	-0.6	3.22
850	300	850	56856	-8,7	0.3	10.4	-7.7	0.7	3,24
862.5	300	862.5	56859	-5.2	5,8	11.4	-5.4	0,5	3.36
875	300	875	56861	-6.0	2.3	11.8	-7.4	0.2	3.4
887.5	300	887.5	56863	-6.8	12.0	12.5	-14.5	-2.8	3 43
900	300	900	56868	-10.9	11.2	12.7	-16.4	-3.2	3.49
912.5	300	912.5	56873	-20.0	9.9	12.7	-20.9	-5.2	3.45
925	300	925	56873	-22.1	11.1	12.7	-19.4	-5,8	3.46
937.5	300	937.5	56870	-27.4	8,0	12.5	-22.2	-6.5	3.51
950	300	950	56876	-34.4	5.6	12.0	-24.5	-9.9	3.6
962.5	300	962.5	56882	-29.7	6.5	11.3	-19.4	-6.7	3.48
975	300	975	56883	-28.4	8.5	11.1	-18.0	-6.7	3.52
987.5	300	987.5	56885	-26.2	7.6	11.2	-16.9	-5.5	3.52
1000	300	1000	56888	-25,0	7.6	11.3	-16.9	-6.5	3,58
1012.5	300	1012.5	56892	-24.5	3.9	11.3	-14.7	-5.6	3,69
1025	300	1025	56891	-24.0	2.6	11.2	-14.6	-6.4	3.64
1037.5	300	1037.5	56891	-21.7	3,5	11.2	-14.0	-6.2	3.61
1050	300	1050	56894	-22.5	4.0	11.2	-15.8	-7.4	3.69

Easting	Northin	g #1. Station	# 2.	#3.	# 4.	# 5.	# 6 .	#7.	# 8 .
1062.5	300	1062.5	56897	-21.9	4.4	11.4	-12,5	-6,5	3,63
1075	300	1075	56896	-22.0	5.0	11.4	-14.4	-6.7	3,56
1087.5	300	1087.5	56893	-25.4	2.3	11.3	-14.2	-8.2	3,66
1100	300	1100	56893	-25.8	2.6	11.0	-13.2	-9.1	3,64
1112.5	300	1112.5	56894	-23.2	3.4	10.9	-12.5	-9.6	3.72
1125	300	1125	56898	-21.6	4.5	11.0	-12.1	-8.2	3.78
1137.5	300	1137.5	56902	-21.7	2,1	11.0	-11.1	-7.4	3.94
1150	300	1150	56899	-21.1	2.2	11.1	-9,6	-8.4	3,96
1162.5	300	1162.5	56901	-14.2	-23.0	11.0	-9.9	-9,2	4
1175	300	1175	56900	-15.8	-14.7	10.9	-8.8	-9.4	4.08
1187.5	300	1187.5	56902	-17.6	0.1	11.0	-5,8	-7.4	4.26
1200	300	1200	56900	-16.9	-1.2	11.0	-4.8	-6.2	4.29
1212.5	300	1212.5	56899	-9.7	-16.3	10.6	-1.0	-6.7	4.26
1225	300	1225	56900	-8.3	-14.8	10.5	-1.4	-6.4	4.26
1237.5	300	1237.5	56908	-4.5	-12.1	10.7	2.9	-4.5	4.29
1250	300	1250	56919	-2.9	-11.9	10.7	5.0	-2.3	4.35
1262.5	300	1262.5	56922	-1.3	-10.4	10.8	7.3	-3.4	4,46
1275	300	1275	56927	0.5	-9.7	10.8	8.0	-2.5	4.43



ч

•

•



••

16

..

•



.

ч

••

.

- •











