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CASA GRANDE ENERGY & MINES LTD.

GEOPHYSICAL AND GEOCHEMICAL REPORT
on the
REEF MINERAL CLAIM

KAMLOOPS MINING DIVISION

N. Latitude 50° 54'   W. Longitude 120° 18'

NTS 92 I/16

by

FRANK DISPIRITO, P. Eng.

STRATO GEOLOGICAL ENGINEERING LTD.

3566 King George Highway

SURREY, B.C. V4A 5B6

December 31, 1984

STRATO GEOLOGICAL ENGINEERING LTD.

SUMMARY

The Reef mineral claim, consisting of 16 units, is situated astride Jamieson Creek in the Kamloops Mining Division, some 24 kilometers north of Kamloops, B.C.

Recently completed detail very low frequency electromagnetic, total field magnetic, and induced polarization/resistivity surveys have identified several areas warranting follow-up exploration.

I.P./resistivity work, along with VLF-EM and magnetics, has outlined a possible wide shear zone within an argillaceous bedrock near the baseline in the southern Grid 1 area. Scattered soils geochemistry results indicates some mineralization may be associated with this shear zone.

Magnetometer and VLF-electromagnetic results have possibly picked up a north-northeasterly extension of the outlined "south" shear zone and have delineated an east-west lamprophyre ? dyke in the Grid 2 area. Geochemical sampling of the dyke area has indicated anomalous gold and sulphide values and a north-south conductive zone crosses the dyke about 100 meters from the baseline.

It is concluded that the results of the geophysical work warrant follow-up work to furthur delineate structural targets and test targets for economic mineralization.

An induced polarization/resistivity survey is recommended to delineate the northerly extension of the shear zone and it is proposed to test the outlined shear zone by percussion or diamond drilling.

Respectfully submitted,
Strato Geological Engineering Ltd.

F. DiSpirito, P.Eng.

December 31, 1984

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO

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STRATO GEOLOGICAL ENGINEERING LTD.

INTRODUCTION

Pursuant to a reguest from the Directors of Casa Grande Energy and Mines Ltd., detailed very low frequency electromagnetic, detail magnetometer, and induced polarization/resistivity surveys were conducted over an east-central portion of the Reef mineral claim during December, 1984.

The property comprises 16 units situated more or less astride the valley of Jamieson Creek, about 24 kilometers due north of Kamloops, British Columbia (Figure 2).

The intent of the survey work was to define possible mineral targets outlined by previous survey work. Surveys were also performed to cover the northeast claim area. The results of the geochemical sampling, detail magnetic, VLF-electromagnetic and induced polarization/resistivity surveys along with an interpretation are presented in this report.

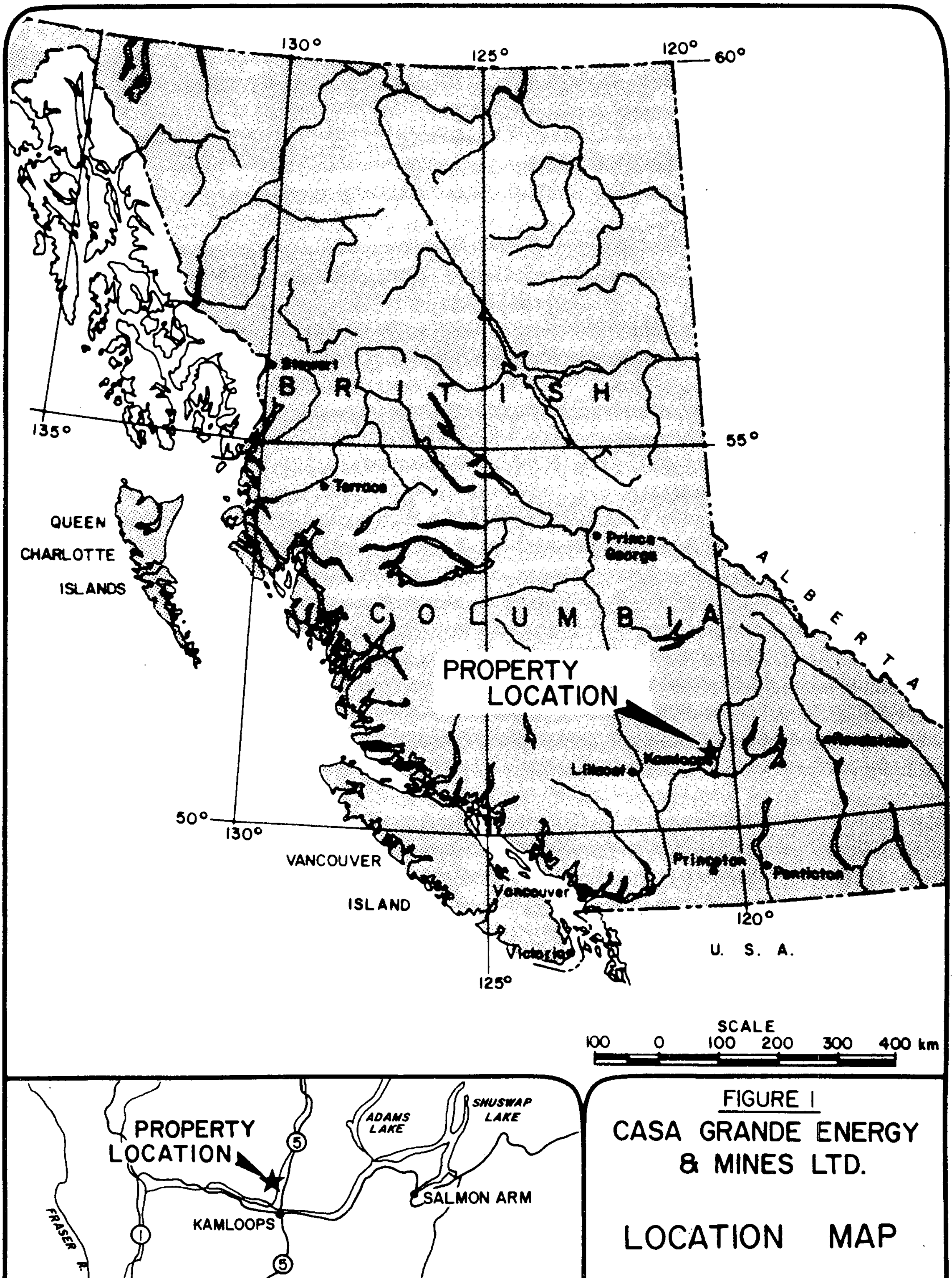


FIGURE 1

CASA GRANDE ENERGY & MINES LTD.

LOCATION MAP

Dec. 31, 1984

STRATO GEOLOGICAL ENGINEERING LTD.

LOCATION, ACCESS, TOPOGRAPHY

The Reef mineral claim comprises 16 claim units located about 24 kilometers north of Kamloops, B.C. in Tp 22, R17, W6 in the Kamloops Land Disrict on the west side of the Thompson River.

Access is available by automobile along the west side of the North Thompson River to Jamieson Creek and along the Jamieson Creek road which bisects the property in a northwesterly direction. The southeast corner of the claim is approximately 500 meters west of the main road (Figure 2). Access to the east-central property areas is available by 4WD truck on a private road heading west of the highway 1 kilometer north of Jamieson Creek. The road access is controlled by the land owner, Mr. A. Schrauwen, and permission is required for its use.

The general topography is of moderate relief, except in the immediate vicinity of the creek which flows through a steep-walled valley. Elevations range between 425 and 750 meters above sea level. Drainage from both sides of the property is towards Jamieson Creek, which bisects the claim and flows southeasterly into the Thompson River. Drainage in the eastern claim area (the general survey area) is to the southeast with gentle to moderate slopes. The claim area is generally forested with yellow pine.

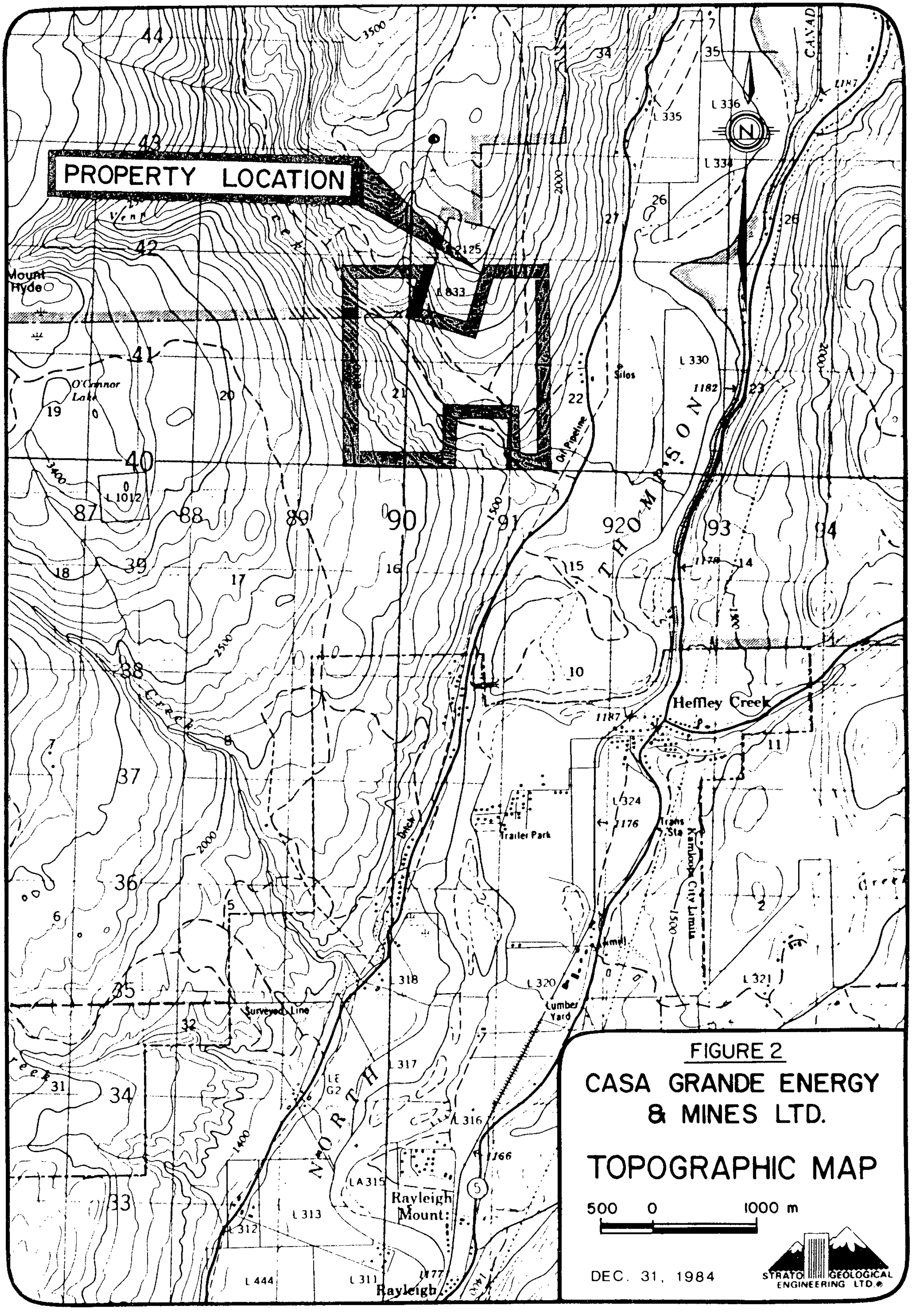


FIGURE 2
CASA GRANDE ENERGY & MINES LTD.
TOPOGRAPHIC MAP
500 0 1000 m
DEC. 31, 1984
STRATO GEOLOGICAL ENGINEERING LTD.

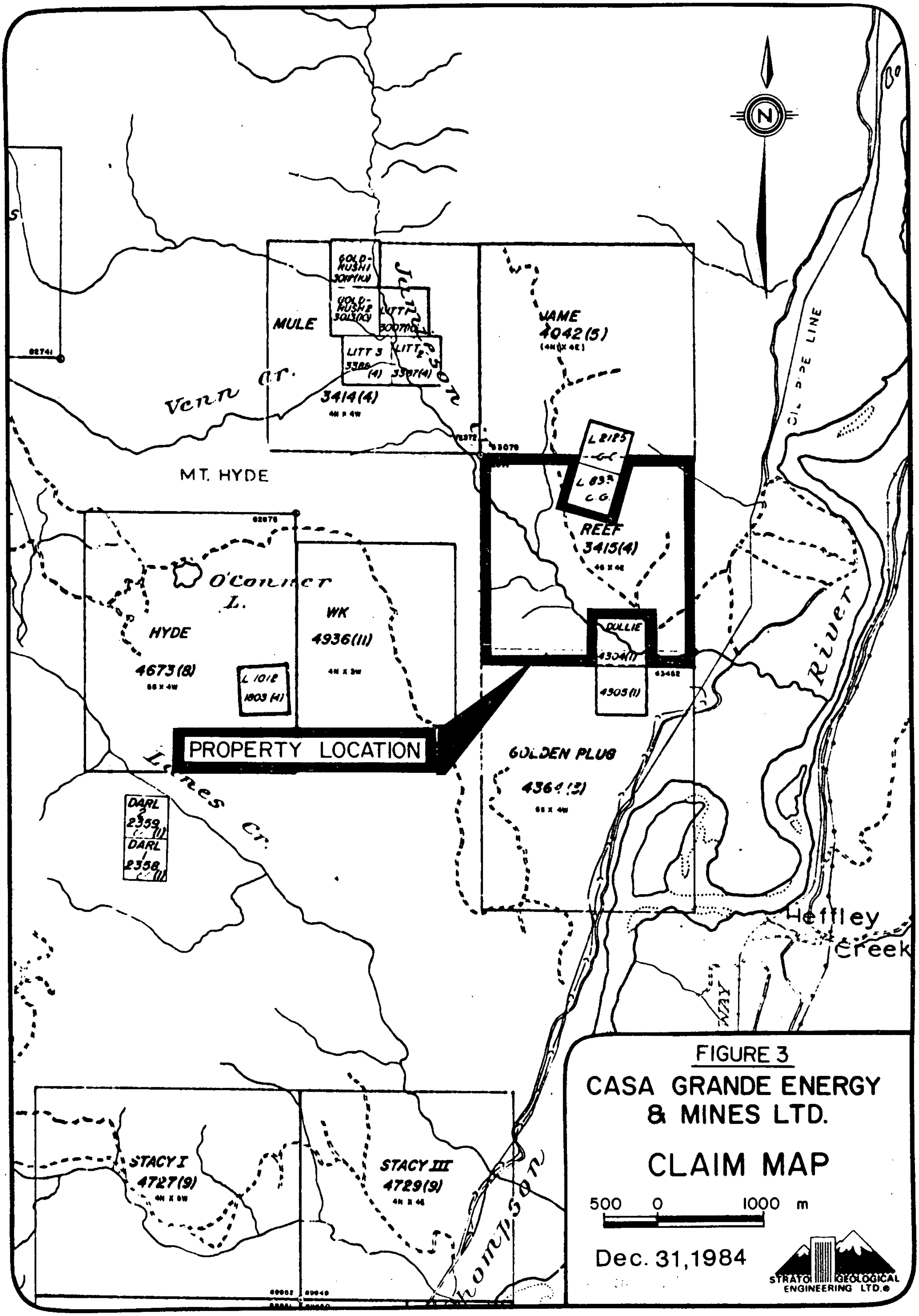
CLAIMS

The Reef mineral claim is situated in the Kamloops Mining Division, astride Jamieson Creek, about 24 kilometers due north of Kamloops, British Columbia. The claim is recorded as follows:

Name	Units	Record No.	Expiry Date
Reef	16	3415	April 21, 1986

The claim is shown on British Columbia Ministry of Energy, Mines and Petroleum Resources mineral claim map M 92-I/16W.

The Reef claim may not contain a full 16 units as it borders the Homestake and Molly Gibson crown grant mineral claims in the north and the Dollie mineral claim in the southern property areas as indicated on Figure 3.


MULE
JAME
4042(5)
Venn Cr.
3414(4)
MT. HYDE
REEF
3415(4)
O'Conner L.
HYDE
4673(8)
WK
4936(11)
L 1012
1803 (1)
DULLIE
4305(1)
PROPERTY LOCATION
GOLDEN PLUG
Lones Cr.
DARL 2
2359
DARL 1
2358
River
Heffley Creek
STACY I
4727(9)
STACY III
4729(9)
Thompson
FIGURE 3
CASA GRANDE ENERGY
& MINES LTD.
CLAIM MAP
500 0 1000 m
Dec. 31, 1984
STRATO GEOLOGICAL ENGINEERING LTD.

HISTORY

The history and previous development of the area has been fully described by D.W. Tully, P. Eng., Report dated June 30, 1981, and is not recapitulated in this report. Several shafts and an adit have been developed on the Homestake-Molly Gibson claims and assays of up to 1.1. oz/Ton gold and 9 oz/Ton silver have been reported (Memoir 249, W.E. Cockfield).

Geophysical work in 1982 and 1983 outlined several northerly trending conductive zones of over 300 meters strike length near the baseline of the survey grid. The conductive zones, coincident with a series of narrow magnetic highs, were interpreted to outline possible faults or shear zones with some associated magnetic mineralization.

GENERAL AND LOCAL GEOLOGY

Two lithological units, namely, sediments belonging to the Cache Creek Group and acidic intrusive phases of the Coast Intrusives, underlay the claim area. Small granite-granodiorite stocks and dykes outcrop in the northern property area and along Jamieson Creek. The sedimentary rocks are generally dark schistose sediments, argillites and black shales and slates. In some areas these rocks have been sheared and dragfolded and converted to graphitic and sericitic schist.

Mineralized quartz veins are found, both within the argillaceous sediments and volcanics, as well as the granite-granodiorite intrusives. On the Homestake-Molly Gibson claims a northwest-southeast striking zone of shearing has been well defined within the granite stock. A number of near parallel quartz veins, of up to 5 meters width, have been explored by surface and underground workings within a 100 meter wide "mineralalized belt". Sulphides present in the veins include pyrite, arsenopyrite, sphalerite, and galena, generally in small amounts.

LEGEND

12,11	Kamloops Group
10a	Coldwater Beds
8	Andesite, Basalt, Breccia & Minor Sedimentary Rocks
4a,4	Coast Intrusions
3	Nicola Group
2,1,1a	Cache Creek Group
A	Metamorphic Rocks & Granitic Intrusions

AFTER W.E. COCKFIELD, 1947

FIGURE 4

CASA GRANDE ENERGY & MINES LTD.

REGIONAL GEOLOGY

5 0 5 km

Dec. 31, 1984

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INSTRUMENTATION AND SURVEY PROCEDURE

Detailed magnetometer, VLF-electromagnetic, and induced polarization/resistivity surveys were carried out in the south-central area of the previously established grid where conductive-magnetic zones had been outlined. The original line numbering system was retained. Magnetic and VLF-EM surveys were conducted at 10 and 20 meter line separation and 5 meter station spacing. The I.P./resistivity survey work was carried out on a 20 meter by 20 meter spacing in the southern detail grid area. The grid baseline, Line 230N, is located 450 meters due west of the claim boundary.

A secondary survey grid was established in the northeast claim area on the same baseline. Magnetic and VLF-EM surveys were carried out at 20 meter line intervals and 10 meter station spacing. Lines were run 400 meters west and cover an area southeast and east of the Homestake-Molly Gibson crown grants.

A Poinjar drill was used to obtain rock chip samples. Where bedrock was not reached, a hand auger was used to obtain soil samples from a 2 foot depth. Geochemical analyses for gold, silver, lead, zinc, and arsenic were performed. Samples were taken from anomalous areas defined by the geophysical survey work.

The VLF electromagnetic surveys were conducted with a Sabre Electronics, Model 27 receiver. The transmitter station used was NPG, Jim Creek, Washington at a frequency of 24.8 kHz and a radiated power of 250 kilowatts. Both dip angle of the resultant VLF field and horizontal field strength measurements were recorded. Dip angle measurements were filtered using the Fraser Filter Method in order to filter out "noise" and to permit presentation of data in contour map form (Figures 6 and 10). The method is well known and is fully described in the literature. Original data, dip angle and field strength measurements, are appended to the report.

The magnetic survey was conducted using a Scintrex Model MP-2 proton precession magnetometer. All survey data was tied to an established base station and lines were "looped" to allow for correction of diurnal variation in accordance with normal practice. Data was corrected and plotted in contour map form as Figures 5 and 9.

The induced polarization/resistivity survey was conducted using the gradient array with a current electrode separation of about 700 meters. Potential measurements were taken in the central grid area with 20 meter and 40 meter potential electrode spacing. Measurements were recorded at 20 meter intervals. A Huntec Mark 4 IP system, with a 7.5 kilowatt transmitter, was used and a ground current of greater than 5 amperes was maintained. Results were plotted in contour map form and are presented as Figures 7 and 8.

DISCUSSION OF RESULTS

Geophysical Results - Grid 1

Figure 5 presents the magnetic results in contour map form. The VLF electromagnetic results are presented in Figure 6, and the IP and Resistivity results are presented in Figures 7 and 8.

Magnetic relief over the grid area is generally less than 200 gammas and no clear trends or linearities, relating to structural features, are indicated. The magnetic map reveals several isolated (located on one or two lines), moderately anomalous highs adjacent to lows suggesting possible geological features, such as shear zones or faults.

A number of very weak magnetic highs, intensity variations of less than 60 gammas, are found in the grid area but are generally of a "circular" nature and likely reflect slight variations in magnetic mineralization of a sedimentary bedrock in this area.

Magnetic low anomalies are located at L230N, 80W and L250N, 75W, just east of relatively weak, northerly trending, VLF-EM conductive zone from L220N, 82W to L290N, 75W. A weak magnetic high, with a related east-side low, is located at L370N, 85W and can be traced to L390N, 75W. This anomaly is also associated with a weak, northerly trending, apparent VLF-EM conductor (L290N, 50W to L380N, 80W). The magnetic and electromagnetic response of these anomalies is generally weak but suggests the source may be shear zones with alteration of the country rock causing the magnetic lows or mineralization relating to the magnetic high.

An electromagnetic conductor of greater than average response is indicated on Line 250N at 48W and trends northerly to Line 310N, 30W through a broad area of relatively "flat" magnetic background values. The strength of the anomaly however suggests a shear zone or fault zone and the configuration of the three conductive zones in the southeastern grid area suggest that the zones may be related.

The induced polarization/resistivity survey was carried out in the southern quarter of the grid. The induced polarization results show high background, relatively noisy chargeabiltiy values ranging from between 30 and 75 msec,typical of lightly pyritized argillic rock. Resistivity values are very low and are also typical of argillite and shale units.

A sharp apparent resistivity gradient, increasing to the west, is located along the baseline, from Line 220N through Line 340N. This gradient delineates the western edge of a 50 to 100 meter wide, very low, resistivity zone centered at L310N, 30E.

This zone is also characterized by a relatively weak, broad magnetic high (centered at L310N, 25E) and a series of weak VLF-EM conductors which may be reflecting the edges of this low resistivity zone. The resistivity "low" is interpreted as a broad, northerly trending, shear zone within the argillite bedrock.

Several zones of generally weak electromagnetic response are found in the east central grid area. Two of these zones, centered at L360N, 25E and L350N, 85W and are related to weak magnetic features and may reflect the northerly extension of the postulated broad shear zone to the south. Very weak E.M. trends indicate this low resistivity may extend as far north as Line 440N.

Another conductive zone trends northerly from L420N, 135E to L480N, 105E through an area of "flat" magnetic response and is attributed to a near parallel shear zone or fault.

Geophysical Results - Grid 2

Figures 10 and 11 present the Grid 2 Magnetic and VLF-electromagnetic results.

Magnetic relief is generally less than 50 gammas with an average background value of 57,600 gammas. A major linear magnetic high anomaly striking near east-west along Lines 920N to 960N is clearly defined on the contour map. The anomaly is less than 20 meters wide and has a strike length of over 450 meters. Several profiles were run across this zone and results indicate a narrow, near vertical dyke of less than 15 meters width and very shallow depth, possibly less than 10 meters (Figure 12). Subsequent prospecting and hand trenching confirmed the presence of an intermediate to basic dyke rock (Lamprophyre?) as the cause of the anomaly.

The VLF-electromagnetic results outline a relatively strong conductor from L860N, 90W through L1000N, 100W. This zone has a strike length of 140 meters, is open to the north and may continue to the south, where the zone widens or splits (L840N to L780N). The zone trends north through the magnetic dyke described above The strength of the electromagnetic response suggests this feature is a relatively wide shear or fault zone.

A very broad, conductive zone is centered on L840N, 270W. The E.M. response is up to 100 meters in width and shows a possible northwest trend. The E.M. response and configuration may reflect a wide low resistivity shear zone within the argillaceous sediments.

Soils and Rock Geochemistry

A total of 91 soils samples and 10 rock chip samples were collected from anomalous areas of Grids 1 and 2. Results are shown on Figures 9 and 13.

Soil samples were collected from B horizon soils at minimum depths of 60 cm. (2 feet) and rock samples were obtained from bedrock using a Pionjar drill to secure relatively fresh rock samples. Samples were placed into standard kraft envelopes and plastic sample bags. Analysis for Au by Atomic Absorption methods and for Ag, As, Cu, Pb, and Zn by Inductively Coupled Argon Plazma (ICP) methods was completed by Acme Analytical Laboratories Ltd. of Vancouver B.C.

Due to the relatively low number of samples taken, statistical analysis was carried out by graphical methods and histogram plots for each element are included as part of Appendix A.

Gold

Values greater than 24 ppb are considered anomalous while values greater than 15ppb are considered above background and of interest.

An isolated anomalous soil sample value (40 ppb gold) is located at Line 360N, 95E. This result is coincident with a VLF-electromagnetic conductor. Several above background, scattered gold values are also found near weak conductive zones around Line 270N, 40E to 60E and Line 370N, 70W.

Two anomalous results are located on N-S soils lines run across the magnetic dyke located on Grid 2. The 33 ppb gold (soil sample) value at L140W, 918N also shows weakly anomalous copper. A rock chip sample, L123W, 902N, is anomalous in gold (43 ppb) copper, lead, zinc, and arsenic. A soil result at L123W, 900N also shows above background gold at 21 ppb.

Silver

Values of 0.5 ppm and greater are considered anomalous. Three anomalous values are located at L380N, 70W (with a 20 ppb gold value), L123W, 912N, and L123W, 940N. Results are isolated values with no coincident base metal anomalies.

Arsenic

Values greater than 24 ppm are considered anomalous and only

3 values are found in the area sampled within Grid 2. The highest value, 95 ppm, is coincident with an anomalous gold base metal rock sample at L123W, 902N. Other soil anomalies are located at L140W, 918N (with a high gold value) and an isolated value of 44 ppm at L140W, 928N.

Copper

A review of copper results indicates a seperation of the north and south sample areas is necessary for detailed analysis. Values greater than 60 ppm in the south (Grid 1) area may be considered anomalous. Results in the Grid 2 area are a mix of a small number of soil and rock samples which distorts any analysis. No significant copper anomalies are found in the Grid 1 area.

Rock and soil samples on Line 123W, from 902N through 924N show anomalous results. Anomalous values in other elements are also found here and the area warrants furthur work.

Zinc

The graphical analysis again includes both sample areas due to the small sample density. The Grid 2 area shows somewhat higher background values. Several above background values are found in the Grid 1 area but are not coincident with other anomalous elements and no significant grouping of zinc values is noted.

Zinc values on Lines 123W and 140W show a high background and anomalous results are somewhat coincident with other anomalous elements. The highest value, 214 ppm at L123W, 928N, is associated with somewhat higher gold and arsenic values. A 164 ppm anomaly is coincident with a gold, arsenic, copper, lead anomaly at L123W, 902N.

Lead

Lead values in both sample areas group well in the 8 to 10 ppm area. Only one anomalous value is indicated. This is the rock sample at 123W, 902N, which is anomalous in all elements tested except silver.

Results of soils geochemistry in the Grid 1 area generally indicates anomalous values shown as scattered highs. Due to heavy overburden in the area, the scattered high values of gold, even though low, are considered to be important indications of possible mineralization at depth.

CONCLUSIONS AND RECOMMENDATIONS

The geophysical surveys have outlined a probable strong shear zone of considerable width within an argillaceous bedrock just east of the baseline in the south (Grid 1) area. Weak VLF-electromagnetic and magnetic trends indicate this broad shear zone may extend north to the central grid area. Very broad, weak VLF-electromagnetic response on Grid 2 indicates the same zone may be picked up again about 500 meters to the north-northeast.

Above background values in gold and zinc in the area of the postulated shear zone may indicate some mineralization at depth. Overburden cover appears to be heavy in this area and the scattered gold values are considered important. Also, a previous gold anomaly of 350 ppb gold was located at Line 250N, 0+00, in the 1983 survey work.

Several relatively weak magnetic and electromagnetic features indicate smaller shears west of, and near parallel to, the postulated main shear zone. Soils geochemistry, here again, indicates scattered, above background values in gold, zinc, and silver associated with the geophysical features.

The magnetometer survey has indicated a narrow, east-west lamprophyre (?) dyke crossing the central Grid 2 area . A relatively strong conductor, a probable shear zone, is located about a 100 meters west of the baseline at Lines 860N through Line 1000N. Both anomalies warrant further exploration.

Soil and rock chip sampling across the dyke indicates anomalous values in gold and other elements present (i.e. Sample L123W, 902N). The area warrants further work, and trenching should be carried out to expose bedrock for sampling. Sampling should be extended eastward to test the postulated shear zone.

A survey of the claim perimeter should be carried out to establish the boundary relative to adjoining ground in the northern claim area.

The Induced Polarization/Resistivity survey should be extended to trace the postulated shear through the northern grid areas and the magnetometer and VLF-electromagnetic surveys should be expanded to cover the balance of the property areas, particularly west to Jamieson Creek. Geochemical sampling of anomalous areas should follow the geophysical surveys.

The defined shear zone should be tested by percussion or diamond drill tests at, or near, the western and eastern boundaries of the zone.

Estimated Costs of the Proposed Work Program

Phase 1

Survey the perimeter of the claim and tie in with crown granted mineral claims in the northern property area	$6,500.00
Geological mapping of property, tied in with established grid	$3,200.00
Induced Polarization/Resistivity survey - dipole -dipole configuration, line spacing 50 meters, a = 20m, n = 1 to 10 - estimate 14 km @ $850/km	$11,900.00
Soil and rock chip sampling - allow 250 samples, analysis for Au, Ag, As, Cu, Pb, and Zn at $15.50/sample (collected and analyzed)	$3,875.00
Diamond drill tests of southern shear zone allow 200 meters at $90/meter (incl. mob and demobilization)	$18,000.00
Core handling, assaying, supervision, and reporting at 25% of $18,000.00	$4,500.00
Contingencies @ 15%	$7,200.00
Estimated Cost of Phase 1	$55,175.00

Phase 2

Contingent upon an engineering evaluation of the Phase 1 program, it is proposed to test any mineral targets deemed to be of merit by diamond drilling.

Diamond drilling - allow 1000 meters of NQ core size wireline at $90/meter (incl. mob-demob.) $90,000.00

Core handling, assaying, supervision, and reporting at 20% of $90,000.00 .... $18,000.00

Estimated Cost of Phase 2 $108,000.00

Total Estimated Cost - Phase 1 and 2 $163,175.00

Respectively Submitted,
Strato Geological Engineering Ltd.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO

F. Dispirito

December 31, 1984

REFERENCES

Annual Report of the Minister of Mines, British Columbia,
1930 - p. A189
1935 - p. D9

Stevenson, J.S. (1936)
Special Report in Annual Report of the Minister of Mines for 1936, British Columbia.

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Geological Survey of Canada, Memoir 249, pp 77, 76.

Tully, D.W. (1981)
Report on the Reef Mineral Claim; Don Tully Engineering Ltd., West Vancouver, B.C.

Englund, R. J. (1982)
Assesment Report on a VLF-EM and Magnetometer Survey on the Reef Claim; Strato Geological Engineering Ltd., Vancouver, B.C.

Hulme, N.J. (1984)
Assessment Report on a Geophysical and Geochemical Survey on the REEF claim; Strato Geological Engineering Ltd., dated March 22, 1984.

TIME-COST DISTRIBUTION

The geophysical surveys and geochemical sampling was conducted over portions of the Reef mineral claim by Strato Geological Engineering Ltd. during the period December 18 to December 31, 1984. A list of personnel and distribution of costs is as follows:

Personnel:

F. DiSpirito, B.A.Sc., P.Eng	Project Engineer
R.J. Englund, B.Sc., Sr. Geophysicist	Project Supervisor
A. Hunter, B.Sc., Geophysicist	I.P./Resistivity Supv.
L.C. Marchak, B.Sc., Jr. Geophysicist	I.P. - Magnetic survey
B. Beck, B.S.C.E., Jr. Engineer	I.P./Resistivity
A. Eunson, B.Sc., Geologist	Magnetics-drafting
J. Langewitz, CET, Mining Technologist	VLF-EM - sampling
G. Smith, B.Sc., Geophys. Tech.	I.P. - sampling
J. Gibson, Geophys. Tech.	VLF-EM - survey grids
P. Nielsen, Field Assistant	VLF-EM survey
D. Yeomans, Field Assistant	I.P./Resistivity

Cost Distribution

1) South Area - Grid 1
   - Grid layout, Magnetometer, and VLF-EM survey (Crew (3 men), equipment, 4WD transportation, room and board, etc.
   6 1/2 days @ $680/day $4,420.00

2) I.P./Resistivity survey - Grid 1
   (Crew (3&4), equipment, 4WD transportation, room and board, etc.)
   10 days @ $1,050/day $10,500.00

3) North Area - Grid 2
   - Grid layout, magnetometer, and VLF-EM surveys, (Crew (3), equipment, 4WD transportation, room and board, etc.)
   5 1/2 days @ $680/day $3,740.00

4) Sampling - Rock and Soil, N & S Grid areas
   (Crew (2), rock drill, equipment, transportation, room and board, etc.)
   2 days @ $522.50/day $1,045.00

5) Assaying Costs
   - 101 samples @ $8,87/sample $897.60

6) Project supervision
- field work, data reduction, plotting, drafting, field interpretation, etc.
(Crew (2), transportation, room and board, etc.)
10 days @ $485/day $4,850.00
2 days @ $300/day $600.00

7) Shipping
(I.P. equip. - Toronto, Wenatchee, Vancouver), field supplies, telephone, office expenses, etc. $1,729.00

8) Maps and Report
- Drafting, reproduction, typing, copying, etc. $1,212.00

9) Engineering and Report
- geophysical interpretation, etc................. $1,650.00

Total	$30,644.44

Signed ______________________

Strato Geological Engineering Ltd.

CERTIFICATE

I, FRANK DISPIRITO, of 1319 Shorepine Walk of the City of Vancouver, Province of British Columbia, do hereby certify as follows:

1. I graduated in 1974 from the University of British Columbia, with a Bachelor of Applied Science in Geological Engineering.

2. Since graduation I have been involved in numerous mineral and hydrocarbon exploration programs throughout Canada and the United States.

3. I am a registered member, in good standing, of the Association of Professional Engineers of British Columbia.

4. I have not received, nor do I expect to receive, any interest, direct, indirect, or contingent, in the securities or properties of Casa Grande Energy and Mines Ltd., and that I am not an insider of any company having an interest in the Reef claim group or any properties in the area.

5. Permission is herewith granted to use this report for the purpose of a Prospectus or Statement of Material Facts.

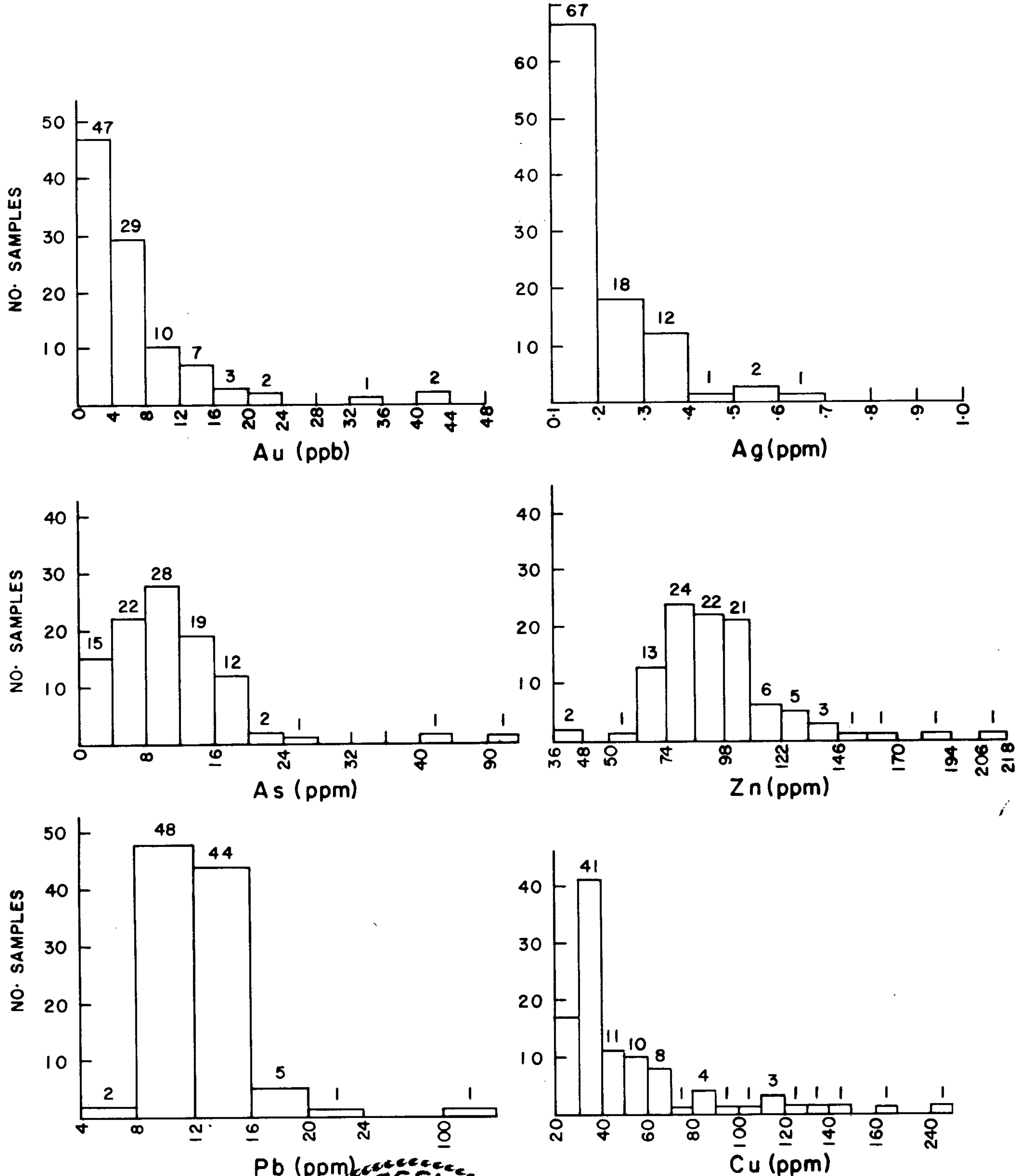
Dated at Vancouver, Province of British Columbia, this 31st day of December, 1984.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO

F.DiSpirito, P. Eng.

STRATO GEOLOGICAL ENGINEERING LTD.

APPENDIX A



PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO

CASA GRANDE ENERGY and MINES LTD·

REEF CLAIM
KAMLOOPS M·D· NTS 92 I/16W

GEOCHEMICAL ANALYSIS

To accompany a report by F·DiSpirito, P·Eng·
STRATO GEOLOGICAL ENGINEERING LTD·

DRAWN BY: RE, SJO DATED: DECEMBER 31, 1984

STRATO GEOLOGICAL ENGINEERING LTD.

ACME ANALYTICAL LABORATORIES LTD.
852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: DEC 30 1984

DATE REPORT MAILED: Dec.31/84...

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR Mn.Fe.Ca.P.Cr.Mg.Ba.Ti.B.Al.Na.K.W.Si.Zr.Ce.Sn.Y.Nb and Ta. Au DETECTION LIMIT BY ICP IS 3 ppm.
- SAMPLE TYPE: P1-SOILS & ROCKS P2-3 SOILS AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: ...[signature]... DEAN TOYE OR TOM SAUNDRY. CERTIFIED B.C. ASSAYER

STRATO GEOLOGICAL FILE # 85-0009 PAGE 1

SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
1+23W 9+00N	60	13	114	.2	11	21
1+23W 9+02N ROCK	254	107	164	.1	95	43
1+23W 9+04N	54	15	108	.3	12	5
1+23W 9+06N ROCK	111	9	50	.1	2	17
1+23W 9+08N	69	17	131	.1	11	3
1+23W 9+10N	89	12	119	.1	16	5
1+23W 9+10N ROCK	132	10	39	.1	2	1
1+23W 9+12N	115	14	101	.6	18	10
1+23W 9+16N	166	14	105	.1	10	3
1+23W 9+18N	149	15	119	.2	17	12
1+23W 9+20N	103	17	128	.3	14	2
1+23W 9+20N ROCK	124	4	39	.1	2	1
1+23W 9+24N ROCK	110	6	63	.2	9	4
1+23W 9+28N	56	14	214	.1	17	14
1+23W 9+32N ROCK	67	12	141	.4	2	12
1+23W 9+34N	86	20	191	.2	15	6
1+23W 9+34N ROCK	69	13	100	.2	2	5
1+23W 9+36N ROCK	39	10	89	.3	2	8
1+23W 9+40N	60	15	141	.5	15	3
1+40W 9+18N	82	15	108	.2	24	33
1+40W 9+20N	89	14	108	.3	16	10
1+40W 9+24N	50	13	146	.1	11	2
1+40W 9+24N ROCK	31	14	101	.3	2	1
1+40W 9+28N	73	14	119	.1	44	6
1+40W 9+28N ROCK	97	11	86	.2	16	3
1+40W 9+32N	55	12	138	.1	20	3
STD C/AU 0.5	60	43	127	7.0	39	505

SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
230N 65W	39	13	109	.1	11	1
230N 75W	27	13	78	.1	7	1
230N 85W	60	13	94	.1	13	1
240N 0E	30	15	115	.1	10	1
240N 10E	26	13	82	.1	6	3
240N 20E	29	17	73	.1	4	1
240N 30E	35	16	72	.1	8	2
240N 40E	42	12	82	.1	12	2
250N 60W	58	14	101	.2	16	2
250N 70W	56	14	86	.1	14	1
250N 80W	37	14	75	.1	6	3
270N 10E	45	13	108	.1	16	2
270N 20E	24	11	73	.1	6	1
270N 30E	29	12	69	.1	8	2
270N 40E	48	13	107	.3	16	15
270N 50E	35	18	130	.1	8	4
270N 60E	61	13	106	.3	20	18
270N 70E	35	13	75	.1	7	2
270N 15W	39	9	83	.1	11	1
270N 25W	36	12	122	.1	10	1
270N 35W	30	11	81	.1	7	3
270N 45W	26	11	67	.1	3	1
280N 15W	32	11	88	.1	6	1
280N 25W	35	11	92	.1	14	5
280N 35W	38	13	77	.1	7	3
280N 65W	42	15	83	.2	7	3
280N 75W	35	13	84	.1	5	1
280N 85W	50	10	98	.3	14	10
300N 0E	47	12	89	.1	17	7
300N 20E	48	11	87	.1	14	3
300N 20AE	49	11	95	.1	15	9
300N 30E	45	11	103	.2	19	4
300N 40E	35	12	110	.1	10	6
300N 50E	26	9	71	.1	6	7
300N 60E	30	12	66	.1	7	9
300N 70E	37	11	64	.1	3	3
300N 10W	38	10	82	.1	10	5
300N 20W	39	11	88	.1	9	7
STD C/AU 0.5	62	42	128	7.3	43	500

SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
310N 0E	39	12	81	.1	8	2
310N 10E	34	11	86	.1	9	6
310N 20E	47	11	92	.3	14	5
310N 30E	38	10	95	.1	12	7
310N 40E	46	11	95	.3	13	15
310N 50E	51	9	98	.1	12	9
310N 60E	27	11	63	.1	3	2
310N 70E	26	12	69	.1	2	1
340N 0E	30	11	93	.1	9	4
340N 10E	39	10	103	.2	15	5
340N 20E	30	8	95	.1	4	6
340N 30E	32	8	83	.1	9	2
340N 40E	31	10	108	.1	9	1
340N 75E	27	8	74	.2	2	1
340N 85E	30	14	69	.1	3	1
340N 100E	48	14	84	.1	9	6
360N 15E	36	12	98	.1	7	1
360N 25E	37	9	81	.1	8	4
360N 35E	29	11	85	.1	9	3
360N 75E	27	10	79	.2	3	1
360N 85E	38	10	68	.1	5	1
360N 95E	51	11	89	.1	18	40
360N 70W	27	8	99	.1	6	6
360N 80W	31	10	86	.1	8	2
360N 90W	29	9	82	.2	4	4
370N 70W	29	10	128	.2	6	12
370N 80W	37	10	81	.1	9	10
370N 90W	36	9	82	.2	8	8
380N 15E	30	9	85	.2	5	4
380N 25E	29	11	103	.1	8	4
380N 35E	22	8	105	.1	5	1
380N 70W	61	13	92	.5	14	20
380N 80W	34	10	88	.1	5	7
380N 90W	57	12	87	.2	11	16
420N 15E	39	15	88	.3	13	12
420N 25E	36	11	78	.3	11	8
420N 35E	32	11	82	.1	4	6
STD C/AU 0.5	61	39	129	7.2	40	500

APPENDIX B

REEF VLF-EM Dec 18-84

LINE 2N

STN	FS	DIP	FF		TOPO
100W	42	+4			D
5	42	+4	-1		D
10	44	+4	-4		F
15	42	+5	-3		UP
20	42	+7	0		[illegible]
75	40	+5	-1	RD	UP
5	38	+7	-2		UP
10	38	+6	-6		D
15	35	[illegible]	-11		
20	34	+11	-1		
50	34	+14	-1		
5	36	+14	+2		
10	35	+12	-4		
15	38	+14	+6		
20	38	+16	0		
25	40	+16	+2		
5	40	+14	-1		
10	40	+16	+1		
15	44	+15	+4		
20	45	+14	+6		
0+00	54	+12	+5		P

REEF VLF Dec 18-84

LINE 210N

STN	FS	DIP	FF		TOPO
100W	36	+6			D
.	36	+5	-3		D
.	39	+6	-5		D
.	36	+8	-1		F
.	35	+8	+1		UP
75	35	+7	0	RD	UP
.	35	+8	-1		UP
.	32	+7	-6		F
.	32	+9	-10		F
.	30	+12	-7		F
50	30	+14	-2		D
.	30	+14	-1		
.	[illegible]	+15	+1		
.	30	+14	+1		
.	32	+14	-2		
25	34	+14	-2		
.	35	+16	0		
.	35	+14	-2		
.	36	+16	-1		
.	36	+16	-1		D
0+00	40	+15	+1		F

REEF VLF Dec 18-84

LINE 220N

STN	FS	DIP	FF	TOPO
100W	42	+16		D
.	44	+12	+6	D
.	46	+12	+4	F
.	48	+10	+8	UP
.	50	+6	+2	UP
75	45	+8	0	UP
.	44	+6	0	F
.	44	+8	+3	F
.	44	+6	+1	F
.	44	+5	-4	F
50	38	+8	-6	F
.	37	+7	-12	D
.	40	+12	-10	
.	35	+15	0	
.	38	+14	+4	
25	38	+13	+1	
.	40	+12	-5	
.	40	+14	-4	
.	42	+16	+2	D
.	45	+14	+4	D
0+00	40	+14	+3	F

REEF VLF Dec 18-84

LINE 230N

STN	FS	DIP	FF		TOPO
100W	44	+6			D
.	45	+8	-3		D
.	45	+10	+4		F
.	48	+7	+4		F
.	45	+7	+6		UP
75	42	+6	+5	RD	UP
.	40	+2	-6		F
.	38	+6	-6		F
.	38	+8	0		F
.	35	+6	-5		F
50	36	+8	-9		F
.	38	+11	-5		D
.	35	+8	0		D
.	38	+12	-3		D
.	38	+11	-5		D
25	39	+10	+3		D
.	40	+12	+2		P
.	40	+12	-4		
.	40	+14	-4		
.	44	+14	-4		
0+00	45	+16	+9		D

L2N	VLF		45 34-56	5 -2+16
				12/18/84
5	50	+11		
10	55	+10	+4	
15	52	+9	+8	
20	55	+9	+4	
25E	55	+6	+7	
5	55	+5	+3	
10	55	+6	0	F
15	56	+5	0	UP
20	56	+6	+4	
50E	55	+4	+2	
5	55	+5	+3	
10	52	+2	+5	
15	54	+2	+5	
20	54	0	+2	
75E	56	+2	+2	
5	52	-2	0	
10	55	0	+2	
15	55	-2	+2	
20	54	-2	0	
100E	54	0	-3	
5	54	-1	+1	
10	54	-2	+3	
15	52	-2	+1	
120E	50	-2		UP

L210N	VLF	+16-1 5	30 28-48	
'	35	+16		F
'	34	+14	+5	F
'	35	+12	+8	F
'	45	+10	+8	F
25E	45	+8	+5	UP
'	45	+9	-1	
'	45	+10	-3	
'	36	+12	-5	
'	35	+12	+2	
50E	38	+8	+10	
'	36	+6	+8	
'	38	+6	+2	
'	38	+6	+1	
'	35	+5	+1	
75	34	+6	-1	
'	36	+6	+3	
'	35	+2	+6	
'	35	+4	+2	
'	30	+2	+3	
100	34	+1	+2	
	36	+3	+1	
	35	-1	+5	
	32	0	+2	
120E	34	0		UP

L220N	VLF		50 35 16 .0	Dec 18
			40 10F	
'	45	+12		
'	45	+13	+1	F
'	45	+12	+4	UP
'	48	+7	+8	
25	48	+8	+7	
'	48	+6	+5	
'	48	+6	+3	
'	48	+5	+3	
'	48	+4	+3	
50	48	+4	+1	
'	42	+4	+2	
'	44	+2	+4	
'	40	+2	0	
'	42	+4	-3	
75	42	-3	-3	
'	45	+6	-3	
'	44	+4	+3	
'	42	+2	+6	
'	46	+2	0	
100	45	+4	-2	
	45	+2	+4	
	45	0	+4	
	45	+2	-2	
120E	44	+2		UP

L230N	VLF +16		35 50 40	10 Dec 18 UP
5	45	+16		
'	46	+5	+5	
'	40	+12	-2	
'	44	+11	-2	
25	45	+9	+5	
'	46	+8	+4	
'	47	+8	+4	
'	46	+5	+4	
'	46	+7	+3	
50	50	+4	+3	
'	46	+6	+2	
'	46	+4	-1	
'	46	+6	-3	
'	44	+6	+1	
75	45	+3	+5	
	45	+4	+1	
	48	+4	-1	
	48	+4	0	
	42	+4	0	
100	40	+4	+5	
	44	-1	+7	
	36	+2	-3	
	40	+4	-6	
120	40	+3		UP

REEF VLF Dec 19

LINE 240N

STN	FS	DIP	FF	GAIN	TOPO
100W	30	+4		.8	↓
	33	+4	+0		UP
	42	0	+4		UP
	42	-2	-2		FLAT
	42	+2	+6		DWN
75	40	-2	+8		DWN
	40	-4	+2		FLAT
	38	-4	-2		DWN
	38	-4	-2		UP
	36	-2	0		UP
50	34	-4	+2		UP
	35	-2	+2		UP
	37	-6	-4		UP
	30	-2	-2		UP
	30	-2	+2		UP
25	31	-4	-4		UP
	32	-2	-4		UP
	32	0	+2		UP
	32	-2	+2		UP
	32	-2	-4	0.8	FLAT
0	38	-2	-2	1.5	FLAT

LEVEL (S)

REEF VLF Dec 19

LINE 250N

STN	FS	DIP	FF	TOPO
100W	30	+2		
	30	+2	0	
	33	+2	+2	
	33	+2	+6	FLAT
	35	0	+4	UP
75	35	-2	+6	UP
	37	-4	+2	UP
	35	-4	-2	UP
	35	-4	-4	DWN
	35	-2	+4	DWN
50	35	-2	+12	DWN
	35	+8	+4	FLAT
	32	+8	+2	DWN
	30	-6	+4	DWN
	32	-2	-6	DWN
25	32	+2	+4	DWN
	32	-4	-4	DWN
	36	0	-4	FLAT
	36	+2	+6	FLAT
	36	-2	+8	FLAT
0	40	+2	+8	↑

LEVEL (S)

REEF VLF Dec 19/84

LINE 260N

STA	FS	DIP		TOPO
100W	50	0	CAL @ 1.1	↓
	50	+2	-6	UP
	50	+4	+2	DWN
	55	+4	+10	DWN
	66	0	+8	FLAT
75W	57	-2	0	DWN
	63	-2	-2	DWN
	65	0	0	UP
	68	-2	+2	UP
	70	0	+6	UP
50W	70	-4	+6	UP
	70	-4	+4	UP
	67	-6	+2	FLAT
	67	-6	-2	FLAT
	62	-6	-6	FLAT
25W	63	-4	-6	UP
	62	-2	-2	UP
	63	-2	+2	FLAT
	62	-2	+2	FLAT
	63	-4	-4	FLAT
0	63	-2	-4	FLAT

LEVEL (S)

LINE 270N
REEF VLF Dec 19/84

STA	FS	DIP			TOPO
100W	57 32	+8			
	55 30	0	-2		
	56 30	+6	+2		
	57 32	+4	+8		UP
	57 32	+0	-4		UP
75W	59 34	+2	-6		↑ UP
	57 32	+6	+4		FLAT
	55 30	+2	+2		DWN
	55 30	+2	-6		DWN
	55 30	+4	-2		DWN
50W	55 30	+6	+4	↑	DWN
	55 30	+2	+6		DWN
	51 26	+4	+16		DWN
	51 26	-2	+16		DWN
	45 20	-8	-2		DWN
25	45 20	-6	-14		DWN
	45 20	-2	-14		DWN
	43 18	+2	-8		DWN
	43 18	+4	-9	↑ HWAI @	DWN
+25	45 20	+4	-11	99.8	DEC 20 DWN
0	52	+11	-1		↑

LEVEL (S)

LINE 250 000

L240N VLF Dec 18/84

STA	FS	DIP	FF		TOPO
-43	93	53 +2	+9		1.5 DWN
10	57	-4	+10 CAC		-8 DWN
	57	-5	+2		DWN
	54	-7	+2		DWN
25E	57	-4	+4		DWN
	58	-10	+12		DWN
	60	-12	+2		DWN
	58	-14	+4		DWN
	58	-14	+4		DWN
50	57	-16	+6		DWN
	57	-16	+4		DWN
	54	-16	-7		DWN
	53	-15	-5		DWN
	52	-14	-1		FLAT
75	57	-12	+6		FLAT
	56	-16	+4		FLAT
	54	-16	0		FLAT
	54	-16	+2		DWN
	54	-16	+4		FLAT
100E	51	-18	0	0	FLAT
	49	-18	-6		DWN
	47	-16	-6	1	DWN
	47	-14		0	DWN
120	43	-14			DWN

L250N Dec 19.

	FS	DIP	FF		TOPO
5	40	-6	+6	40-5	FLAT
10	40	-6	+2		UP
15	42	-8	0		UP
20	42	-6	+2		UP
25	42	-8	+2		UP
	40	-8	0		UP
	40	-8	+2		UP
	40	-8	+4		UP
	40	-10	+2		UP
50	38	-10	+2		UP
	36	-10	-2		UP
	36	-8	+4		UP
	38	-10	+6		UP
	38	-12	+2		UP
75	41	-12	-6		UP
	41	-12	-10		UP
	41	-6	+2		UP
	41	-8	+8		UP
	42	-12	+2		UP
100	43	-10	+2		UP
	40	-12	+2		UP
	38	-12	+2		UP
	40	-12			UP
120	43	-10			↑

L260N VLF 19 Dec.

STA	FS	DIP	FF		TOPO
	66	0	+4	0	↓
	66	-2	+6	1	FLAT
	63	-4	+6	4	DWN
	60	-4	+6		DWN
25E	63	-8	0		DWN
	62	-6	0		DWN
	62	-6	+4		DWN
	62	-8	+4		DWN
	60	-8	+4		DWN
50E	58	-10	+2		DWN
	55	-10	-2		DWN
	53	-10	+4		DWN
	55	-8	0		DWN
	55	-8	+4		DWN
75E	55	-10	+4		DWN
	54	-10	+4		DWN
	53	-12	+2		DWN
	53	-12	0		DWN
	55	-12	+2		DWN
100E	52	-12	+4		DWN
	52	-14	+2		DWN
	48	-14	-2		FLAT
	43	-14			FLAT
	44	-12			DWN

LINE 270N

STA	FS	DIP			TOPO
	52	+8	+9		UP
	54	+8	+8	5	UP
	56	+2	0	0	UP
	55	+6	+5		UP
25E	60	+4	+13	0	UP
	60	-1	+4		UP
	60	-2	+4		UP
	46	+1	+15		UP
	55	-8	+6		UP
50E	52	-8	-2		UP
	53	-6	+2		UP
	53	-8	+4		UP
	55	-8	+4		UP
	55	-10	0		UP
75E	55	-10	-2		UP
	52	-8	+2		UP
	52	-10	+4		UP
	50	-10	+6		UP
	52	-12	+4		UP
100E	52	-14	-4		UP
	50	-12	-6		UP
	48	-10	+2		FLAT
	48	-10	-14		UP
	47	-14			↑

REEF VLF
LINE 280N DEC 20/84 99.8

STA	FS	DIP		TOPO
100W	32	+8		↓
	36	0	-2	DWN
	36	+2	-10	DWN
	34	+8	+8	DWN
	40	+4	+16	DWN
75W	40	-2	+8	DWN
	43	-2	+4	FLAT
	43	-4	+4	FLAT
	43	-4	+4	UP
	43	-6	+6	UP
50W	46	-8	+6	UP
	46	-6	-10	UP
	48	-2	-2	UP
	50	-2	+12	UP
	50	-4	+20	FLAT
25W	46	-12	+8	UP
	46	-14	-6	FLAT
	45	-10	-6	FLAT
	45	-10	-6	UP
	45	-8	0	UP
0	50	-6	+4	FLAT

REEF VLF - LINE 290N Dec 20/84

STA	FS	DIP		TOPO
100W	52	+0		UP
	50	+2	-10	UP
	53	+4	-8	UP
	53	+8	0	UP
	55	+6	+4	UP
75W	57	+6	+6	UP
	58	+4	+4	DWN
	58	+2	0	DWN
	58	+4	+6	DWN
	58	+2	+14	DWN
50W	58	-2	+14	DWN
	58	-6	+6	DWN
	58	-8	-2	DWN
	60	-6	+2	DWN
	58	-6	+10	FLAT
25W	53	-10	+4	DWN
	53	-12	-2	FLAT
	48	-8	+2	DWN
	48	-12	+4	DWN
	50	-10	-2	FLAT
0	50	-14	-14	FLAT
			CAL 70.1	

REEF VLF
LINE 300N DEC 20/84
70.1

STA	FS	DIP			TOPO
100W	50	0			↓
	52	0	0	55	DWN
	50	+2	+4		DWN
	50	-2	+2		DWN
	52	0	+2		DWN
75W	50	-2	+4		DWN
	55	-2	+4		FLAT
	55	-4	0		DWN
	55	-4	-2		UP
	53	-2	+6		UP
50W	55	-4	+12		UP
	58	-8	+4		UP
	60	-10	-6		UP
	60	-6	+2		FLAT
	60	-6	+12		DWN
25W	60	-12	+8		DWN
	55	-12	+4		FLAT
	55	-14	-4		FLAT
	55	-14	-12		FLAT
	55	-8	-4		UP
0	55	-8	0		FLAT

LEVEL (S)

R D PENHALL LTD. MADE IN VANCOUVER CANADA DUKSBAK WATERPROOF

REEF VLF
LINE 310N DEC 20/84
70.1

STA	FS	DIP		TOPO
100W	53	-4		↓
	55	0	+2	DWN
	55	-4	-2	DWN
	55	-2	-4	DWN
	55	0	0	DWN
75W	60	-2	-4	DWN
	57	0	-2	FLAT
	60	+2	+8	DWN
	55	-2	+10	UP
	57	-4	+8	UP
50W	57	-6	+2	UP
	58	-8	-4	UP
	55	-4	+2	UP
	57	-6	+6	UP
	57	-8	+4	UP
25W	60	-8	0	FLAT
	57	-10	-2	FLAT
	57	-6	+6	FLAT
	53	-10	0	UP
	53	-12	-18	FLAT
0	53	-4	-10	DWN

LEVEL (S)

R D PENHALL LTD. MADE IN VANCOUVER CANADA DUKSBAK WATERPROOF

L280N — Dec 20/84 — LEVEL(S) 99.8

STA	FS	DIP		LEVEL(S)	TOPO
	52	-12	-4		↓
	55	-6	+2	0	FLAT
	55	-8	+10	1	DWN
	55	-12	0	4	DWN
25E	55	-12	-8		DWN
	55	-8	-6		DWN
	60	-8	+4		DWN
	60	-6	+12		DWN
	60	-12	+6		DWN
50E	62	-14	-8		DWN
	65	-10	-8		DWN
	70	-8	0		DWN
	70	-8	+6		DWN
	70	-10	+2		DWN
75E	70	-12	-2		DWN
	75	-8	+4		DWN
	77	-12	+6		DWN
	78	-12	+2		DWN
	75	-14	-6		DWN
100E	80	-12	-10		DWN
	80	-8	-6		DWN
	82	-8	-6		DWN
	82	-6			DWN
125E	82	-4			DWN

R.D. PENHALL LTD. MADE IN VANCOUVER, CANADA DURASAN WATERPROOF

L290N — Dec 20/84

STA	FS	DIP		LEVEL(S)	TOPO
	85	-6	-10		UP
	90	-4	0		UP
	90	-6	-2	50	UP
	90	-4	+8		UP
25E	90	-8	+8	1	UP
	90	-10	0		UP
	92	-10	-2		UP
	90	-8	+2		UP
	90	-10	+4		UP
50E	87	-10	0		UP
	87	-12	-4		UP
	87	-8	-4		UP
	87	-10	-4		UP
	87	-6	0		UP
75E	85	-8	+2		UP
	87	-8	-2		UP
	85	-8	-6		UP
	85	-6	-6		UP
	85	-4	-2		UP
100E	85	-4	+2		UP
	80	-4	+6		UP
	83	-6	+4		UP
	85	-8			UP
120E	80	-6		99.8	↑

L300N

STA	FS	DIP			TOPO
	57	-10	-4		DWN
	55	-6	-2		DWN
	53	-8	0		DWN
	57	-6	+2		DWN
25E	57	-8	0		DWN
	53	-8	-4		FLAT
	55	-6	-2		DWN
	55	-6	+2		DWN
	57	-6	+4		DWN
50E	58	-8	0		DWN
	57	-8	-2		DWN
	57	-6	+12		DWN
	57	-8	+4		DWN
	57	-12	-10		DWN
75E	57	-6	-8		DWN
	57	-4	+2		DWN
	55	-6	+4		DWN
	57	-6	+4		DWN
	55	-8	0		DWN
100E	55	-8	-4		DWN
	55	-6	0		DWN
	55	-6	+2		DWN
	55	-8			DWN
120E	57	-6			DWN

L310N — CAL DEC 21 — 0.8

STA	FS	DIP			TOPO
	50	-4	-4	50	DWN
	50	-2	+2		DWN
	55	-2	+10		DWN
	58	-6	+8		DWN
25E	55	-8	+4	0	FLAT
	55	-8	+4		DWN
	53	-10	0		DWN
	53	-10	-4		DWN
	55	-8	0		DWN
50E	53	-8	+2		DWN
	50	-10	-2		DWN
	50	-8	-4		DWN
	50	-8	-2		DWN
	47	-6	+2		DWN
75E	45	-8	+4		DWN
	45	-8	+4		DWN
	45	-10	+4		DWN
	43	-10	+6		DWN
	40	-12	+4		DWN
100E	40	-14	-8		DWN
	40	-12	-8		DWN
	40	-6	+8		DWN
	38	-12			DWN
120E	35	-14			DWN

REEF VLF — LINE 320 N — DEC 21/84

STA	FS	DIP			TOPO
100W	43	-2			FLAT
	43	-4	-4		UP
	43	-2	-12		UP
	48	0	-14		FLAT
	48	+6	-6		FLAT
75W	48	+6	+2		UP
	50	+6	+6		FLAT
	53	+4	+6		FLAT
	52	+2	+6		FLAT ~~DWN~~
	50	+2	+8		DWN
50W	50	-2	+2		DWN
	48	-2	0		DWN
	48	0	+4		DWN
	48	-4	+4		DWN
	50	-2	+4		DWN
25W	50	-6	-4		FLAT
	48	-4	-8		DWN
	48	0	-4		DWN
	56	-2	-2		FLAT
	50	+2	+6		UP
0	50	-2	+10		UP
56					↑
LEVEL (S)					

REEF VLF-EM — LINE 330N — DEC 21/84

STA	FS	DIP		0.8	TOPO
100W	43	-4			↓
	43	0	-10		FLAT
	43	+2	-4		FLAT
	45	+4	+2		DWN
	45	+2	+2		DWN
75W	45	+2	+6		DWN
	45	+2	+8		DWN
	43	-4	0		FLAT
	48	0	0		FLAT
	48	-2	+4		DWN
50W	45	-2	+2		UP
	45	-4	-2		UP
	45	-2	-6		UP
	45	-2	-2		UP
	43	+2	+8		UP
25W	43	-4	+2		UP
	43	-4	[illegible]		UP
	43	0	+2		FLAT
	43	-2	+6		FLAT
	43	-4	+4		FLAT
0	45	-4	+4		FLAT
LEVEL (S)					

REEF VLF-EM — LINE 340N — DEC 23/84

STA	FS	DIP			TOPO
100W	45	+2			↓
	45	+2	+2		FLAT
	45	0	-2		FLAT
	45	+2	+2		FLAT
	45	+2	+6		DWN
75W	45	-2	+2		~~DWN~~
	43	0	+4		FLAT
	45	-2	+4		DWN
	45	-4	0		FLAT
	43	-2	0		FLAT
50W	42	-4	0		FLAT
	35	-2	0		FLAT
	33	-4	+2		UP
	33	-2	0		UP
	37	-6	-6		UP
25W	37	0	-2		UP
	37	-2	+4		FLAT
	37	-2	+4		FLAT
	40	-4	0		FLAT
	42	-4	-2		DWN
0	42	-2	+4		DWN

REEF VLF-EM — LINE 360N — DEC 21/84

STA	FS	DIP			TOPO
100W	33	+2			UP
	33	+4	0		UP
	33	+4	+4		FLAT
	33	+2	+8		FLAT
	33	+2	+6		FLAT
75W	33	-4	-6		FLAT
	33	+2	-4		FLAT
	33	+2	+6		FLAT
	35	0	+4		FLAT
	35	-2	0		FLAT
50W	37	0	+2		FLAT
	37	-2	+2		FLAT
	35	-2	0		FLAT
	35	-2	-2		FLAT
	37	-2	-4		FLAT
25W	35	0	-2		FLAT
	35	0	+2		FLAT
	35	0	+4		FLAT
	38	-2	+2		FLAT
	35	-2	0		FLAT
0	38	-2	0		FLAT
				0.8	↑
LEVEL (S)					

STA	FS	DIP			TOPO
	53	-4	+8		FLAT
	55	-6	+4		UP
	55	-8	0		UP
	53	-6	-2		UP
25E	50	-8	-4		UP
	50	-4	+2		UP
	48	-6	+4		UP
	48	-8	0		UP
	50	-6	+2		UP
50E	50	-8	0		UP
	45	-8	+4		UP
	45	-6	+8		UP
	45	-12	+2		UP
	45	-10	+8		UP
75E	42	-6	+4		UP
	42	-8	+8		UP
	42	-12	0		UP
	42	-10	-4		UP
	42	-10	-6		UP
100E	42	-8	-4		UP
	42	-6	+4		UP
	38	-8	+8		UP
	35	-10			UP
120E	35	-12		0.8	↑

L330N Dec 21/84

STA	FS	DIP			TOPO
	45	-6	+4		FLAT ↓
	45	-6	+6		DWN
	45	-8	+10		DWN
	43	-10	+6		DWN
25E	43	-14	-4		DWN
	40	-10	+4		DWN
	40	-10	0		DWN
	38	-8	+8		DWN
	38	-12	+6		DWN
50E	38	-14	0		DWN
	38	-12	+4		DWN
	35	-14	+2		DWN
	35	-16	-4		DWN
	33	-12	-4		DWN
75E	33	-14	-6		DWN
	35	-10	-2		DWN
	35	-10	+6		DWN
	33	-12	-2		DWN
	35	-14	+6		DWN
100E	30	-16	+2		DWN
	30	-16	-6		DWN
	30	-16	-2		DWN
	27	-10			DWN
120E	27	-10			DWN

L340N Dec 23/84

STA	FS	DIP		0.8	TOPO
05E	45	-4	+8		DWN
	45	-6	+8		DWN
	45	-8	+6		DWN
	43	-10	+2		DWN
25E	42	-10	+2		DWN
	38	-10	+2		DWN
	35	-12	-2		DWN
	35	-10	-2		DWN
	35	-10	+2		DWN
50E	35	-10	+6		DWN
	35	-12	+4		DWN
	37	-14	-4		DWN
	37	-12	-8		DWN
	35	-10	-8		DWN
75E	33	-8	-4		DWN
	33	-6	+4		DWN
	35	-8	+10		DWN
	35	-10	+8		DWN
	35	-14	+4		DWN
100E	33	-12	+4		DWN
5	30	-16	-2		DWN
10	30	-14	-4		DWN
15	30	-12			DWN
20	28	-14			DWN

LEVEL (S)

L360N

STA	FS	DIP			TOPO
	38	-2	+2		
	38	-2	+2		FLAT
	40	-4	+4		FLAT
	40	-2	+12		FLAT
25E	38	-8	+10		UP
	40	-8	+6		UP
	37	-12	+4		UP
	35	-12	+2		UP
	33	-12	+2		UP
50E	33	-14	-8		UP
	33	-12	-12		UP
	33	-6	0		UP
	35	-8	+2		UP
	35	-10	+4		UP
75E	35	-6	+12		FLAT
	35	-8	+18		UP
	32	-10	+10		UP
	32	-12	+8		UP
	30	-16	-2		UP
100E	30	-14	-4		UP
	28	-12	-4		UP
	28	-14	-10		UP
	28	-8			UP
120E	28	-8		0.8	↑

REEF VLF LINE 380N DEC 21/84

STA	FS	DIP		0.8	TOPO
100W	33	+2			↓
	35	+2	-2		FLAT
	33	+2	+2		FLAT
	35	+4	+10		FLAT
	33	-2	+4		DWN
75W	33	-2	-4		DWN
	35	0	0		DWN
	35	0	-2		DWN
	37	-2	-8		DWN
	38	+4	-4		FLAT
50W	40	+4	+8		FLAT
	40	+2	+8		FLAT
	40	-2	+4		FLAT
	42	0	+6		FLAT
	40	-4	+6		FLAT
25W	38	-4	0		FLAT
	40	-6	-6		FLAT
	40	-2	-4		FLAT
	40	-2	+2		FLAT
	42	-2	+8		FLAT
0	40	-4	+8		FLAT

LEVEL (S)

REEF VLF LINE 400N DEC 21/84

STA	FS	DIP		0.8	TOPO
100W	38	-2			
	38	+0	-6		
	38	+2	-2		
	40	+2	0		FLAT
	40	+2	+4		FLAT
75W	38	+2	+6		FLAT
	40	-2	-2		UP
	35	0	-6		UP
	40	+2	0		UP
	38	+2	+4		FLAT
50W	38	0	0		FLAT
	40	0	-2		FLAT
	42	+2	+4		FLAT
	42	0	+6		FLAT
	42	-2	+4		FLAT
25W	42	-2	+4		FLAT
	42	-4	0		FLAT
	42	-4	-2		FLAT
	42	-2	0		FLAT
	42	-4	+2		FLAT
0	42	-2	+6		FLAT ↑
					56

LEVEL (S)

REEF VLF LINE 400N DEC 21/84

STA	FS	DIP		0.8	TOPO
125E	38	-10	-2		UP
	38	-8	-4		UP
	40	-10	-6		UP
	38	-12	-2		UP
	40	-12			UP
150E	38	-8			↑

LEVEL (S)

REEF VLF LINE 420N DEC 21/84

STA	FS	DIP		0.8	TOPO
100W	35	-2			↓
	33	-4	0		FLAT
	35	-4	-4		FLAT
	33	-2	-4		FLAT
	35	-2	-6		FLAT
75W	35	0	-4		DWN
	35	+2	0		DWN
	35	0	-2		DWN
	38	+2	+6		DWN
	38	+2	+4		DWN
50W	38	-6	-6		DWN
	35	+2	-6		DWN
	37	0	+2		FLAT
	37	+2	+8		FLAT
	38	-2	+4		FLAT
25W	38	-4	0		FLAT
	38	0	+8		FLAT
	40	-6	+4		FLAT
	38	-6	0		FLAT
	37	-4	+2		FLAT
0	37	-8	-6		FLAT
		-4			
		-2			

LEVEL (S)

STA	FS	DIP	L380N	0.8	~~TOPO~~ FLAT ↓
	42	-8	-2		FLAT
	42	-6	-6	W	FLAT
	42	-4	+2	U7	FLAT
	42	-4	+10		FLAT
25E	40	-8	+10		DWN
	40	-10	+8		DWN
	38	-12	+2		DWN
	38	-14	-8		DWN
	35	-10	-8		DWN
50E	35	-8	0		DWN
	35	-10	-4		DWN
	40	-8	-2		DWN
	40	-6	+8		DWN
	40	-10	+10		DWN
75E	40	-12	+6		DWN
	40	-14	-4		DWN
	40	-14	-10		DWN
	40	-8	-2		DWN
	42	-10	+2		DWN
100E	42	-10	0		DWN
	42	-10	+2		DWN
	40	-10	+6		DWN
	40	-12			DWN
120E	40	-14			DWN

STA	FS	DIP	L400N		TOPO
	42	-6	+4		FLAT
	42	-6	+2		UP
	42	-6	+2		UP
	43	-8	+2		FLAT
25E	42	-6	+4		UP
	40	-10	+4		UP
	40	-8	+4		FLAT
	38	-12	-2		FLAT
	35	-10	-8		UP
50E	35	-8	-2		UP
	37	-6	+2		UP
	37	-10	-2		UP
	[illegible]	-6	+2		UP
	[illegible]	-8	+2		UP
75E	[illegible]	-10	+2		UP
	43	-6	+2		UP
	38	-10	+2		UP
	[illegible]	-8	+8		UP
	[illegible]	-10	+8		UP
100E	37	-14	[illegible]		UP
	37	-12	-8		UP
	37	-8	0		UP
	35	-10	+2		UP
120E	38	-10	[illegible]		UP ↑

~~RCEF VLF~~ VHF LINE 420N — DEC 23/84

STA	FS	DIP		0.8	~~TOPO~~ ↓
125E	48	-8	+4		FLAT
	48	-10	+6		DWN
	48	-10	+10		FLAT
	48	-14	+6		FLAT ~~DWN~~
	47	-16			DWN
150E	43	-14			DNN

R D PENHALL LTD. MADE IN VANCOUVER CANADA
DURABAK WATERPROOF

LEVEL (S)

L420N -4 — DEC 23 — 0.8

STA	FS	DIP -8			TOPO FLAT ↓
05E	32	-4	-8		
10	32	-2	-2		FLAT
15	32	-2	+4		FLAT
20	38	-2	+14		FLAT
25E	40	-6	+10		DWN
	40	-10	+2		DWN
	43	-8	+2		DWN
	43	-10	-2		DWN
	43	-10	-6		DWN
50E	43	-6	-2		DWN
	43	-8	-4		DWN
	45	-4	0		DWN
	45	-6	+2		DWN
	48	-6	+4		DWN
75E	50	-6	+6		DWN
	50	-10	0		DWN
	50	-8	0		DWN
	50	-8	+6		DWN
	48	-10	+4		DWN
100E	47	-12	-4		DWN
	48	-10	-4		DWN
	47	-8	0		DWN
	47	-10	-2		DWN
120E	48	-8	0		DWN

REEF VLF
LINE 440 N DEC 23/84

STA	FS	DIP		0.8	TOPO
100W	32	-4			FLAT
·	32	-6	+2		FLAT
·	32	-6	0		FLAT
	33	-6	-4		FLAT
	33	-6	-6		FLAT
75W	35	-2	-2		UP
	37	-4	0		UP
	38	-2	0		UP
	38	-4	-2		FLAT
	40	-2	-6		UP
50W	37	-2	-4		UP
	37	+2	+2		FLAT
	37	-2	-2		FLAT
	38	0	-4		FLAT
·	37	+2	+4		FLAT
25W	37	0	+6		FLAT
	37	-2	+4		FLAT
	37	-2	+2		FLAT
·	37	-4	+2		FLAT
·	38	-2	+6		FLAT
0	40	-6	+4		FLAT
		-6			↑
		-6			

REEF VLF
LINE 440 N DEC 23/84

STA	FS	DIP	-8	0.8	TOPO
105E	45	-12	+2		UP
·	45	-10	+2		UP
	45	-12	+2		UP
	47	-12	0		UP
125E	48	-12	+4		UP
	50	-12	+6		UP
·	47	-16	+2		UP
·	45	-14	+2		UP
·	40	-16			UP
150E	40	-16			↑

REEF VLF
LINE 460 N DEC 23/84

STA	FS	DIP		0.8	TOPO
100W	37	-4			↓
	37	-6	-2		DWN
	37	-4	-2		DWN
	40	-4	-2		DWN
	38	-4	-2		DWN
75W	38	-2	0		FLAT
·	38	-4	0		DWN
	38	-2	+2		FLAT
	38	-4	+2		FLAT
	38	-4	0		DWN
50W	38	-4	0		FLAT
·	38	-4	+2		FLAT
	38	-4	+4		FLAT
	38	-6	-2		FLAT
	38	-6	-8		FLAT
25W	40	-2	-2		FLAT
·	42	-2	+6		FLAT
·	42	-4	+6		FLAT
	42	-6	+2		FLAT
	45	-6	+2		FLAT
0	45	-6	+4		FLAT
		-8			
		-8			

REEF VLF
LINE 460N DEC 23/84

STA	FS	DIP		0.8	TOPO
105E	48	-8	+4		↓ DWN
	50	-8	+6		DWN
	50	-10	+4		DWN
·	50	-12	0		DWN
125E	50	-10	+4		DWN
·	50	-12	+10		DWN
	50	-14	+14		DWN
·	47 (~~50~~)	-18	+10		DWN
	43	-22			DWN
150E	40	-20			DWN

L440N

STA	FS	DIP		0.8	TOPO
05E	38	-6	+2		FLAT
	40	-6	+6		FLAT
	40	-8	+4		FLAT ~~UP~~
	40	-10	-4		UP
25E	38	-8	0		UP
	40	-8	+4		UP
	40	-10	0		UP
	37	-10	-6		UP
	38	-8	-4		UP
50E	38	-6	+2		UP
	40	-8	+2		UP
	40	-8	0		UP
	42	-8	0		UP
	42	-8	-2		UP
75E	43	-8	-4		UP
	43	-6	0		UP
	43	-6	+6		UP
	45	-8	+4		UP
	43	-10	+2		UP
100E	45	-8	+6		UP
					↑

LEVEL (S)

R.D. PENHALL LTD. MADE IN VANCOUVER, CANADA DUKSBAK WATERPROOF

L460N

STA	FS	DIP		0.8	TOPO
	47	-8	+2		FLAT
	45	-8	-2		FLAT
	45	-8	0		FLAT
	47	-6	+6		FLAT
25E	47	-10	+4		DWN
	45	-10	+2		DWN
	45	-10	+2		DWN
	43	-12	-6		DWN
	45	-10	-8		DWN
50E	43	-6	0		DWN
	43	-8	0		DWN
	43	-8	-4		DWN
	45	-6	0		DWN
	47	-6	+2		DWN
75E	47	-8	0		DWN
	47	-6	+2		DWN
	47	-8	+2		DWN
	47	-8	-2		DWN
	47	-8	-2		DWN
100E	47	-6	+2		DWN

LEVEL (S)

R.D. PENHALL LTD. MADE IN VANCOUVER, CANADA DUKSBAK WATERPROOF

REEF VLF LINE 480 N DEC 23/84

STA	FS	DIP			TOPO
100W	45	-8			UP
·	47	-4	0		UP
·	45	-8	-2		FLAT
·	45	-4	-2		FLAT
·	47	-6	0		FLAT
75W	45	-4	+2		FLAT
	45	-6	+2		FLAT
	45	-6	-2		FLAT
	45	-6	-6		FLAT
-	45	-4	-2		FLAT
50W	45	-2	+6		FLAT
·	45	-6	+4		FLAT
·	47	-6	-2		FLAT
·	47	-6	-4		FLAT
·	48	-4	-4		FLAT
25W	48	-4	-2		FLAT
	50	-2	+4		FLAT
	52	-4	+8		DWN
·	52	-6	+4		FLAT
·	52	-8	0		FLAT
0	52	-6	+2		FLAT
		-8		0.8	↑
		-8			

REEF VLF LINE 480 N DEC 23/84

STA	FS	DIP	-8		TOPO
105E	52	-10	+4		UP
·	52	-10	+6		UP
	52	-12	+4		UP
	50	-14	+4		UP
125E	50	-12	+10		UP
	50	-18	+4		UP
	47	-18	-4		UP
	45	-16	0		UP
·	43	-16			UP
150E	40	-18			
				0.8	↑

CASA REEF L 5+00 N DEC 28/84

STA	FS	DIP	FF		TOPO
100W	30	-4			DOWN
	29	-5	+1		↓
90W	29	-5	+1		
	28	-5	+2		
80W	28	-6	-1		
	26	-6	-5		
70W	28	-4	-5		
	30	-3	-2		
60W	32	-2	+1		
	30	-3	+2		
50W	30	-3	+2		
	30	-4	+2		
40W	29	-4	+2		
	29	-5	+1		
30W	28	-5	-1		
	28	-5	-2		
20W	30	-4	-1		
	32	-4	0		
10W	34	-4	-2		↓
	34	-4	-5		
0	48	-2	-5	GC-8	DOWN
	50	-1	+1		↓

R D PENHALL LTD. MADE IN VANCOUVER CANADA DURABAK WATERPROOF

LEVEL (S)

Reef L 5+00 N Dec 28

125E	41	-5	+3		DOWN
	41	-6	0		↓
	40	-6	-2		
	39	-5	-1		
	39	-5			
150E	38	-5			

L480N

STA	FS	DIP			TOPO
05E	52	-8	+2		FLAT
	52	-8	0		UP
	52	-8	+2		UP
	52	-8	+2		UP
25E	52	-10	-4		UP
	50	-8	-6		UP
	50	-6	0		UP
	50	-6	0		UP
	50	-8	-4		UP
50E	52	-4	-2		UP
	53	-6	0		UP
	52	-4	+2		UP
	52	-6	+2		UP
	52	-6	+2		UP
75E	52	-6	+2		UP
	50	-8	-2		UP
	52	-6	-2		UP
	52	-6	+2		UP
	53	-6	+6		UP
100E	52	-8	+6		UP
		-10		0.8	↑
		-10			

L5+00 N — Dec 28/84

10E	50	+2	+1		DOWN
	50	+2	+5		↓
20E	51	0	0		
	50	-1	+2		
30	48	-1	+5		
	46	-2	+2		
40	45	-4	+1		
	44	-4	+1		↓
50	44	-4	-1		ROAD
	43	-5	-2		DOWN
60	42	-4	-3		↓
	42	-4	-3		
70	43	-3	-1		
	44	-2	0		
80	44	-2	+1		
	44	-2	+2		
90	43	-2	0		
	45	-3	-2		
100	45	-3	+2		
	-44	-2	+1		
110	-44	-2	+4		
	-44	-4	+3		
120E	-42	-4	+3		

Reef L5+20N DEC. 28

STA	FS	DIP	F.F.		TOPO
100W	30	-4			
	30	-6	+2		
	30	-7	-2		↑
	30	-5	-2		
	29	-6	-3		UP
75W	28	-4	-4		FLAT
	28	-4	-4		
	28	-2	0		FLAT
	30	-2	+4		
	30	-4	+2		
50W	30	-4	0		
	27	-4	+2		
	26	-4	+4		
	26	-6	+2		
	26	-6	-1		↑
25W	24	-6	-3		
	24	-5	-3		
	25	-4	+1		
	24	-4	+5		UP
	24	-6	+3		
0	26	-7	0	GC8	FLAT
	26	-6	0		

LEVEL (S)

R D PENNALL LTD., MADE IN VANCOUVER CANADA DURABAK WATERPROOF

Reef L5+20N Dec 28/84

STA	FS	DIP	F.F.		TOPO
125E	32	-5	+2		
	32	-6	+2		
	32	-7	-1		↑
	34	-6	+2		
	35	-6			
150E	35	-5			UP

REEF 5+40N DEC 28

STA	FS	DIP			TOPO
100W	25	-2			DOWN
	25	-2	+2		↓
	26	-1	+1		FLAT
	26	-1	+1		↓
	26	-1	-2		
75W	25	0	-1		UP
	26	0	-1		
	26	0	-3		
	27	+1	-3		↓
	28	+2	0		
50W	29	+2	-3		FLAT
	28	+1	+3		
	27	0	+1		
	27	0	+4		
	28	-2	+2		↓
25W	28	-2	0		
	28	-2	0		DOWN
	28	-2	0		
	28	-2	0		↓
	30	-2	+1		
0W	35	-2	+3	GC-8	DOWN
	35	-3	+3		↓

REEF L5+40N Dec 28

STA	FS	DIP	F.F.		TOPO
	28	-5			DOWN
125E	26	-6	+3		↓
	26	-6	+3		
	26	-8	+4		
	26	-8	+4		
	25	-10			
150E					

L 5+20 N

	26	-7	-1	
	24	-6	-1	
	25	-6	+4	
25E	26	-8	+1	
	26	-8	-3	
	28	-7	-3	
	28	-6	-2	
	30	-6	-2	
50E	30	-5	-2	
	30	-5	0	
	30	-4	+3	
	31	-6	+2	
	30	-6	0	
75E	30	-6	+2	
	32	-6	+3	
	31	-8	-1	↑
	32	-7	+4	
	32	-6	-5	
100E	32	-5	-1	UP
	31	-5	+1	
	31	-5	+2	
	30	-6	0	
	30	-6	+1	

L 5+40 N

	32	-4	+1	DOWN
	30	-4	+2	↓
	30	-4	+4	
25E	32	-6	+1	
	30	-6	-1	
	29	-5	+1	
	28	-6	+1	
	30	-6	-2	
50E	30	-6	-4	
	32	-4	-2	
	30	-4	+1	
	31	-4	+1	
	30	-5	0	
75E	30	-4	0	
	28	-5	0	
	28	-4	+1	
	29	-5	0	
	28	-5	+2	
100E	28	-4	-2	
	28	-4	+2	
	27	-2	+3	
	28	-4	+5	

REEF L 5+60 N DEC 28/84

STA	FS	DIP			TOPO
100W	28	-2			DOWN
	28	-3	+1		
	28	-2	-1		
	26	-2	+2		
	26	-2	+2		
75W	26	-4	-3		
	27	-2	-4		UP
	27	-1	-1		
	26	-1	-1		
	26	-1	-2		
50W	27	0	-2		
	26	0	-2		
	26	+1	-1		
	28	+1	0		
	28	+1	+1		FLAT
25W	30	+1	+2		
	30	0	+2		
	28	0	+2		DOWN
	26	-1	+1		
	26	-1	+1		
0	24	-1	+2	GC 8	
	25	-2	0		
	25	-2	-2		UP

REEF L 5+80 N DEC 28/84

STA	FS	DIP			TOPO
100W	38	+2			DOWN
	37	+2	-1		
	36	+2	-4		
	36	+3	-7		
	36	+5	-4		
75W	34	+7	+4		
	35	+4	+4		
	37	+4	+2		
	37	+3	+1		
	36	+3	-1		
50W	36	+3	-3		
	36	+4	-3		
	36	+5	-1		
	37	+5	-1		
	36	+5	0		
25W	35	+6	+5		
	36	+4	+6		
	36	+2	+4		
	36	+2	+8		
	37	0	+10		
0W	47	-4	+5	GC-11	DOWN
	47	-4	+2		
		-5			
		-5			

REEF L 6+00 N DEC 28/84

STA	FS	DIP			TOPO
100W	37	+1			
	38	+2	-4		
	38	+2	-5		
	39	+5	-1		
	39	+4	0		
75W	40	+4	0		
	40	+5	+4		
	40	+3	+5		
	41	+2	+3		
	41	+1	+2		UP
50W	42	+1	+2		
	43	0	+1		
	44	0	-1		
	44	0	-3		
	44	+1	-2		
25W	45	+2	+1		
	45	+1	+2		
	45	+1	+3		
	44	0	+3		
	44	-1	+1		
0	42	-1	+1	GC 11	
	42	-1	+2		UP
		-2			
		-2			

REEF L 6+20 N DEC 28

STA	FS	DIP			TOPO
100W	48	+4			DOWN
	49	+4	+1		
	49	+3	-2		
	50	+4	-3		
	51	+5	0		
75W	53	+5	+2		UP
	52	+4	+2		
	52	+4	+1		
	52	+3	-1		
	52	+4	+1		
50W	50	+4	+4		
	52	+2	+2		DOWN
	52	+2	+1		
	53	+2	+1		
	53	+1	-1		
25W	54	+2	0		
	52	+2	+2		FLAT
	52	+1	+1		
	52	+1	-1		DOWN
	50	+1	-2		
0	34	+2	+1	GC-11	DOWN
	34	+2	+4		
LEVEL (S)		0			
		6			

R. D. PENHALL LTD. MADE IN VANCOUVER CANADA DUKSBAK WATERPROOF

Reef — L 5+60 N — Dec 28 — LEVEL (S)

	26	-1	-1		↑
	26	-1	+1		
25E	26	-1	0		
	26	0	+5		
	28	-2	+7		
	28	-4	+4		
	28	-5	+2		
50E	30	-5	+2		
	28	-6	+3		
	26	-6	+4		
	28	-8	+4		
	29	-8	+4		
75E	30	-10	0		
	28	-10	-4		
	26	-8	0		
	26	-8	+2		
	26	-10	-2		
100E	25	-8	0		
	25	-8	L4		
	26	-10	0		↑
	26	-10	+4		
	26	-8			
125E	25	-8			UP

Reef — L 5+80 N — Dec 28/ — LEVEL (S)

	48	-5 (-4)	+2		DOWN
	48	-5	0		↓
	49	-6	-2		
25E	48	-4	+1		
	49	-5	+4		
	49	-6	+3		
	50	-7	+1		
	48	-7	+1		
50E	47	-7	+2		
	48	-8	+2		
	47	-8	+2		
	46	-9	0		
	48	-9	-2		
75E	50	-8	-1		
	48	-8	+1		
	48	-8	+2		
	48	-9	+2		
	48	-9	+2		
100E	47	-10	0		
	46	-10	-2		ROAD
	47	-9	0		DOWN
	46	-9	+4		↓
	46	-10			
	44	-12			

REEF — L 6+00N — LEVEL (S)

	44	-2 (-1)	-1		
	44	-2	-4		
	44	0	-1		
25E	45	0	+3		
	44	-1	+5		
	42	-2	+5		
	42	-4	0		
	43	-4	-4		
50E	40	-2	+1		
	40	-2	+5		
	42	-5	+3		
	43	-6	-3		
	42	-4	0		
75E	42	-4	+4		
	43	-6	+3		
	42	-6	+3		
	44	-7	+3		↑
	45	-8	+1		
100E	45	-8	+2		UP
	43	-8	+6		
	42	-10	+11		ROAD
	43	-12			↑
	44	-17			UP

REEF — L 6+20 N

	35	0 (+2)	+4		DOWN
	35	0	+4		↓
	36	-2	-1		
25E	35	-2	-4		
	34	+1	0		
	33	-1	+2		
	32	0	+3		
	32	-2	+1		
50E	30	-2	+2		
	30	-1	+1		
	30	-1	-1		
	32	-1	-3		
	32	0	0		
75E	34	+1	+1		
	33	0	+2		
	33	0	+2		
	33	-1	+1		
	32	-1	+1		
100E	32	-1	+2		FLAT
	31	-2	+2		↓
	31	-2	+3		
	30	-3			
	30	-4			
125E					

REEF	L	6+40	N	DEC	28
100W	47	0			
	46	+2	-3		
	46	+3	+1		
	46	+2	0		
	45	+2	-1		
75W	46	+3	+1		
	46	+2	0		
	45	+2	-2		
	45	+3	-3		
	46	+3	-3		
50W	46	+5	0		
	47	+4	+2		
	45	+4	+2		
	44	+3	+3		
	43	+3	+3		
25W	42	+1	+1		
	43	+2	+1		
	45	+1	0		
	44	+1	-1		
	42	+2	0		
0	41	+1	-1	GC-11	↑
	39	+2	-2		
	39	+2	-2		UP
LEVEL (S)		+3 +3			

REEF		L 6	+40 E		Dec 28/84
	38	+3 (+2)	0		
	38	+3	+2		
25E	39	+2	+1		
	[illegible]	+2	+1		
	38	+2	+1		
	39	+1	-1		
	39	+2	-1		
50E	40	+2	+1		
	39	+2	0		
	38	+1	-4		
	37	+3	-5		
	37	+4	-2		
75E	35	+5	+3		
	35	+4	[illegible]		
	34	+2	+6		
	34	0	+3		
	34	0	+2		
100E	34	-1	+3		↑
	34	-1	+6		
	33	-3	+4		
	33	-5			
	35	-3			U.P
125E					ROAD

REEF VLF L 7+80 N — DEC. 30

STA	FS	DIP	FF		TOPO
400W	39	+5			FLAT
	39	+10	-8		
380	37	+12	-1		
	36	+11	-1		
360	35	+12	-1		
	36	+12	-1		
340	38	+12	+1		
	40	+13	+5		
320	41	+10	+4		
	40	+10	0		
300	40	+9	+1		
	39	+11	+2		
280	38	+7	+2		
	36	+11	+15		
260	36	+5	+16		
	35	-2	-9		
240	30	+2	-7		
	27	+4	-1		
220	26	+3	-1		
	26	+2	-2		
200	48	+4	-4	GC25	
	47	+5	-2		
LEVEL (S)					

REEF-VLF L 8+00 N — DEC 30

STA	FS	DIP	FF		TOPO
400W	35	+8			
	38	+10	-7		
380	40	+13	0		
	40	+12	0		
360	45	+11	+1		
	46	+12	+8		
340	47	+10	+7		
	49	+5	-1		
320	55	+10	+4		
	56	+6	+8		
300	57	+5	+6		
	56	+3	+6		
280	56	+2	+8		
	54	0	+6		
260	50	-3	+3		
	50	-1	+8		FLAT
240	47	-5	+6		
	47	-7	-4		
220	48	-5	-8		UP
	47	-3	-7		
200	46	-1	-6		
	47	0	-9		FLAT
LEVEL (S)					

REEF VLF L 8+20 N — DEC 29/84

STA	FS	DIP	FF		TOPO
400W	44	+9			FLAT
	45	+10	+4		
380	45	+6	-3		
	44	+9	-4		
360	43	+10	+2		
	45	+9	+1		UP
340	46	+8	-5		
	48	+10	-2		
320	50	+12	+5		FLAT
	54	+8	+5		
300	55	+9	+7		
	58	+6	+9		
280	60	+4	+9		
	55	+2	+14		
260	53	-3	+16		
	49	-5	+14		
240	48	-10	+5		DOWN
	45	-12	+10		
220	45	-8	-21		
	42	-2	-16		
200	40	+3	-7		FLAT
	41	+3	-6		
LEVEL (S)					

REEF VLF L 8+40 N — DEC 29/84

STA	FS	DIP	FF		TOPO
400W	46	+5			
	45	+5	-12		FLAT
380	47	+12	+1		
	47	+10	+8		
360	48	+6	-4		
	49	+8	-8		
340	52	+12	+3		DOWN
	53	+10	+10		
320	56	+7	+8		
	56	+5	+6		
300	57	+4	+9		
	56	+2	+12		
280	56	-2	+13		FLAT
	54	-4	+13		UP
260	52	-9	+11		DOWN
	51	-10	+3		
240	49	-14	+14		
	49	-8	-22		UP
220	48	-2	-14		
	48	+2	-3		DOWN
200	49	+2	0		
	51	+1	-5		FLAT
LEVEL (S)					

L 7+80N

180W	47	+5	-1	
	47	+6	0	
160	46	+5	+2	
	47	+6	+6	↓
140	48	+3	+4	DOWN
	49	+2	0	↓
120	44	+3	+2	
	48	+2	+4	UP
100	46	+1	+3	
	43	0	-3	↓
80	43	0	-7	FLAT
	44	+4	-1	
60	44	+3	+3	
	46	+2	+2	↓
40	45	+2	+2	
	44	+1	0	DOWN
20	43	+1	-4	↓
	41	+2		
0	41	+4		

L 8+00N

180	48	+2	-8		
	48	+6	-1		
160	49	+4	+2		↑
	48	+5	+5		
140	49	+3	+6		FLAT
	49	+1	+5		↑
120	50	+1	+9		
	50	-2	+10		UP
100	51	-5	+1		↑
	51	-6	-5		
80	51	-2	+3		DOWN
	52	-4	+3		↑
60	53	-6	-2		
	52	-3	+1		
40	53	-5	+4		
	52	-5	+7		
20	53	-7	+5		
	52	-10			
0	52	-7		GC 15	UP

L 8+20N

180	42	+5	-4		
	42	+7	0		UP
160	43	+5	+2		UP
	41	+7	+6		FLAT
140	41	+3	+5		DOWN
	38	+2	-2		↓
120	30	+3	-3		
	27	+5	+4		
100	26	+3	+6		↓
	25	+1	-2		FLAT
80	25	+1	-7		↓
	25	+5	-4		UP
60	24	+4	+4		↓
	23	+6	-3		DOWN
40	[illegible]	+7	+2		↓
	20	+6	+6		
20	20	+5	+7		
	18	+2			
0	15	+2		GC 12	

L 8+40N

180W	55	+3	-4		
	56	+5	+4		DOWN
160	57	+3	+5		↑
	56	+1	+1		
140	57	+2	+5		FLAT
	57	0	+7		↑
120	58	-2	+5		
	57	-3	+4		
100	55	-4	0		
	55	-5	-3		UP
80	53	-2	+1		
	53	-4	+4		DOWN
60	52	-4	0		↑
	53	-6	-3		
40	52	-2	+2		
	50	-5	+6		
20	49	-5	+8		
	48	-8			
0	48	-10		GC 12	UP

REEF VLF L8+60N DEC. 29/84

STA	FS	DIP	FF		TOPO
400W	60	+5			FLAT
	56	+3	+11		
380	56	-1	+2		
	55	-2	-6		
360	52	+2	-3		
	52	+1	-2		
340	51	+2	-2		
	51	+3	+1		
320	53	+2	0		
	53	+2	-4		
300	53	+3	-4		
	54	+5	-6		UP
280	53	+6	-6		
	52	+8	-5		
260	52	+9	0		
	53	+10	+7		FLAT
240	53	+7	+10		
	54	+5	+12		
220	53	+2	+18		
	51	-2	+18		
200	50	-9	+2		DOWN
	50	-9	-16		

LEVEL (S)

REEF VLF L8+80N DEC 29/84

STA	FS	DIP	FF		TOPO
400W	60	+3			
	57	+1	+7		
380	55	-2	-1		
	55	-1	-4		
360	53	+1	-1		
	54	0	-3		
340	54	+1	-4		
	54	+3	-1		
320	55	+2	-5		
	53	+3	-10		FLAT
300	51	+7	-3		
	52	+8	+3		DOWN
280	54	+5	+1		
	55	+7	+3		
260	57	+9	+12		FLAT
	57	+4	+6		
240	60	-1	-3		
	58	+4	+1		
220	58	+2	+8		
	58	0	+4		
200	55	-2	0		UP

LEVEL (S)

REEF VLF L9+00N DEC 29/84

STA	FS	DIP	FF		TOPO
400W	25	+8			FLAT
	24	+7	-5		
380	24	+8	-9		
	22	+12	-6		
360	24	+12	-5		
	25	+14	-4		
340	26	+15	+1		
	30	+15	+4		
320	28	+13	+4		
	27	+13	+6		
300	25	+8	0		
	25	+9	-7		
280	23	+15	+2		
	20	+12	+7		
260	20	+10	+2		
	18	+8	0		
240	17	+10	-1		
	17	+8	-6		
220	17	+11	-9		UP
	15	+14	-1		
200W	15	+14	+4		
	15	+12	+4		

LEVEL (S)

REEF VLF L9+20N DEC 29/84

STA	FS	DIP	FF		TOPO
400W	35	+3			
	37	+5	-6		
380W	40	+7	-1		
	42	+7	+3		
360W	42	+6	+3		
	44	+5	-1		FLAT
340W	45	+5	-3		
	47	+7	+1		
320	48	+6	+6		DOWN
	49	+5	+5		
300	45	+2	-2		
	45	+4	-1		FLAT
280	46	+5	+6		UP
	46	+2	+7		
260	47	+1	+1		
	47	-1	-4		
240	46	+3	+1		
	46	+1	+9		FLAT
220	48	0	+6		
	47	-5	-7		
200	47	0	-11		DOWN

LEVEL (S)

L 8+60 N

180W	49	-4	-19		DOWN
	49	+2	-7		↓
160	50	+4	-4		
	52	+5	+1		FLAT
140	52	+5	+5		↓
	51	+3	+4		
120	52	+2	0	STATION MISSED ?	
	53	+2	+1		
100	53	+3	+7		UP
	54	0	+5		
80	53	-2	0		↓
	53	0	+3		DOWN
60	51	-2	+5		
	50	-3	+4		
40	48	-4	+2		↓
	49	-5	-10		UP
20	50	0	-3		DOWN
	48	+1			FLAT
0	47	-3		GC-20	↓

L 8+80 N

	49	0	-6		↑
180W	49	+2	-5		
	48	+2	-7		
160	47	+5	-3		
	48	+6	+4		
140	50	+4	+4		UP
	51	+3	+2		
120	54	+3	+4		
	55	+2	+7		
100	55	0	+9		
	53	-2	+8		
80	52	-5	+2		
	51	-9	+2		FLAT
60	50	-4	+3		
40	↑				
	50	-4	+5		↑
20	50	-2	-5		
	51	-1			
0	50	0		GC 20	UP

L 9+00 N

180W	15	+12	+6		UP
	15	+10	+6		↓
160	16	+8	-1		
	17	+8	-7		FLAT
140	19	+11	-1		↓
	20	+12	+8		
120	18	+8	+7		
	19	+7	+4		
100	18	+6	+10		DOWN
	18	+5	+11		
80	19	0	+3		↓
	16	0	-5		
60	16	+2	-5		
	16	+3	-4		FLAT
40	15	+4	-1		↓
	15	+5	+3		
20	15	+3			DOWN
	15	+3	+1		
0	14	+4			↓

L 9+20 N

	45	+2	-5		
180W	46	+4	+1		X
	48	+3	+3		
160	50	+2	0		
	48	+2	-3		
140	52	+3	-4		
	54	+4	-4		
120	53	+5	-3		FLAT
	55	+6	+2		
100	60	+6	+8		UP ↑
	60	+3	+16		
80	60	+1	+20		DOWN
	58	-8	+11		↑
60	55	-8	+4		
	55	-10	+2		
40	54	-10	-1		
	54	-10	-3		
20	54	-9	-5		↑
	51	-8			UP
0	51	-5		GC 8	DOWN

REEF VLF L 9+40 N — DEC 30/84

STA	FS	DIP	FF		TOPO
400W	43	+3			↑
	42	+2	-4		
380	42	+4	-6		
	44	+5	-3		
360	44	+7	+3		
	46	+5	+2		
340	46	+4	0		
	48	+6	+2		
320	51	+3	-2		FLAT
	52	+5	-2		↑
300	52	+6	-1		
	53	+4	+3		
280	53	+5	+4		UP
	52	+2	+1		↑
260	52	+3	-3		
	50	+3	-5		
240	48	+5	-2		FLAT
	49	+6	+3		↑
220	49	+4	+7		
	50	+4	+8		DOWN
200	50	-1	+3		
	49	+1	0		

LEVEL (S)

R D PENHALL LTD. MADE IN VANCOUVER CANADA DUKSBAK WATERPROOF

REEF VLF L 9+60 N — DEC 30/84

STA	FS	DIP	FF		TOPO
400W	42	+3			FLAT
	42	+3	-1		↓
380	41	+3	0		
	42	+4	0		
360	44	+2	-2		
	43	+5	+2		
340	43	+4	+5		
	42	+1	-3		
320	42	+3	-5		↓
	42	+5	-2		DOWN
300	42	+4	+3		↓
	43	+6	+5		
280	44	+1	-1		
	43	+4	-2		
260	42	+4	+4		
	42	+3	+6		
240	41	+1	+1		FLAT
	43	0	-5		UP
220	43	+3	-1		↓
	44	+3	+2		
200	45	+1	-1		
	46	+3	+1		

LEVEL (S)

R D PENHALL LTD. MADE IN VANCOUVER CANADA DUKSBAK WATERPROOF

REEF VLF L 9+80 N — DEC 30/84

STA	FS	DIP	FF		TOPO
400W	58	-5			↑
	57	-7	-4		
380	56	-6	-6		
	55	-2	+1		
360	55	-5	+1		
	54	-4	-8		
340	53	-2	-6		
	53	+1	+1		↑
320	55	-1	+1		
	56	-1	-3		
300	58	0	-2		
	58	+1	0		FLAT
280	59	0	-2		
	58	+1	-2		↑
260	57	+2	0		
	57	+1	-1		UP
240	57	+2	+1		
	58	+2	+3		
220	59	0	-1		↑
	58	+1	-2		
200	57	+2	0		DOWN
	56	+1	+1		

LEVEL (S)

R D PENHALL LTD. MADE IN VANCOUVER CANADA DUKSBAK WATERPROOF

REEF VLF L 10+00 N — DEC 30/84

STA	FS	DIP	FF		TOPO
400W	56	-2			FLAT
	56	0	-1		↓
380	57	0	+5		
	58	-1	+6		
360	56	-4	+5		
	56	-3	+5		
340	56	-7	0		
	55	-5	-4		UP
320	55	-4	-2		↓
	54	-4	-1		FLAT
300	52	-3	-1		↓
	51	-4	-7		DOWN
280	51	-2	-10		↓
	52	+2	-2		
260	51	+2	-5		
	50	0	-2		
240	51	+1	-6		
	52	+3	-1		
220	52	+4	+4		UP
	54	+1	+1		↓
200	55	+2	-2		
	56	+2	-2		

LEVEL (S)

R D PENHALL LTD. MADE IN VANCOUVER CANADA DUKSBAK WATERPROOF

L9+40N

180W	49	-1	-2		↑
	49	+1	+1		FLAT
160	48	+1	+4		DOWN
	49	-2	-4		
140	49	0	-2		
	51	+3	0	OUTCROP	
120	53	+1	+14		FLAT
	58	-4	+10		↑
100	57	-6	+8		
	55	-7	+12		
80	56	-11	+10		
	54	-14	+2		
60	53	-14	-3		
	52	-13	-4		
40	49	-12	-6		
	49	-11	-9		
20	50	-7	-1		
	49	-7			
0	51	-10		GC 14	UP

L9+60N

180W	44	+2	+1		
	43	+1	-4		FLAT
160	41	+3	-5		
	42	+4	-4		
140	44	+5	-3		↓
	46	+6	+2		
120	46	+6	+14		
	47	+3	+23		DOWN
100	47	-5	+18		↓
	48	-9	+4		
80	49	-11	+1		
	45	-7	+8		
60	43	-14	+6		
	42	-12	+5		
40	41	-15	+4		
	40	-16	-4		
20	32	-15	-10		
	32	-12			
0	30	-9		GC 14	↓

L9+80N

180W	55	+1	+1		DOWN
	55	+1	0		FLAT
160	56	0	-3		↑
	57	+2	-2		
140	57	+2	+3		UP
	59	+2	+16		↑
120	60	-1	+24		DOWN
	59	-11	+9		
100	57	-12	-2		
	57	-9	+2		
80	58	-12	+2		
	54	-11	+3		
60	57	-12	+3		
	55	-14	-2		
40	55	-12	0		
	54	-12	+5		↑
20	54	-14	+2		
	52	-15			
0	51	-9		GC 22	UP

↑ NO NUMBERS ON STATIONS

L10+00N

180W	57	+3	+1		
	56	+3	+2		FLAT
160	55	+1	-3		UP
	55	+3	-5		↓
140	55	+4	-3		DOWN
	57	+5	+3		↓
120	56	+6	+0		
	57	+1	+9		
100	57	+1	+11		
	59	-4	+7		
80	60	-5	+3		
	58	-5	+3		
60	57	-7	+5		
	59	-6	+10		
40	58	-11	+8		
	53	-12	+5		
20	52	-13	+3		
	52	-14			↓
0	51	-11		GC 18	

↑ NO STATION NUMBERS

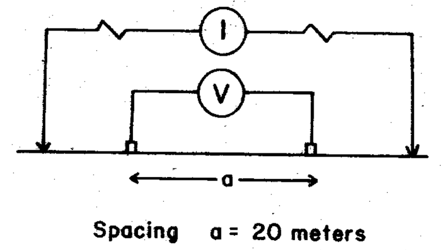
GEOLOGICAL BRANCH ASSESSMENT REPORT
14,241
LEGEND
GRADIENT ARRAY ELECTRODE CONFIGURATION
Spacing a = 20 meters
NOTES:
- Resistivity in (Ω·m)
- Logarithmic contour intervals: 1.0, 1.5, 2.0, 3.0, 5.0, 7.5, 10.0 etc.
- Instruments - Rx HUNTEC M-4; Tx HUNTEC M-4, 7.5 kw
- Time domain - freq. 1/8 Hz
FIGURE 8
CASA GRANDE ENERGY & MINES LTD
REEF CLAIM
KAMLOOPS M.D. NTS 92 I/16W
RESISTIVITY
GRID I
To accompany a report by F. DISPIRITO P.Eng.
STRATO GEOLOGICAL ENGINEERING LTD
Drawn by: RE, ACE
Dated: December 31, 1984
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA F. DISPIRITO

GEOLOGICAL BRANCH ASSESSMENT REPORT

14,241

LEGEND

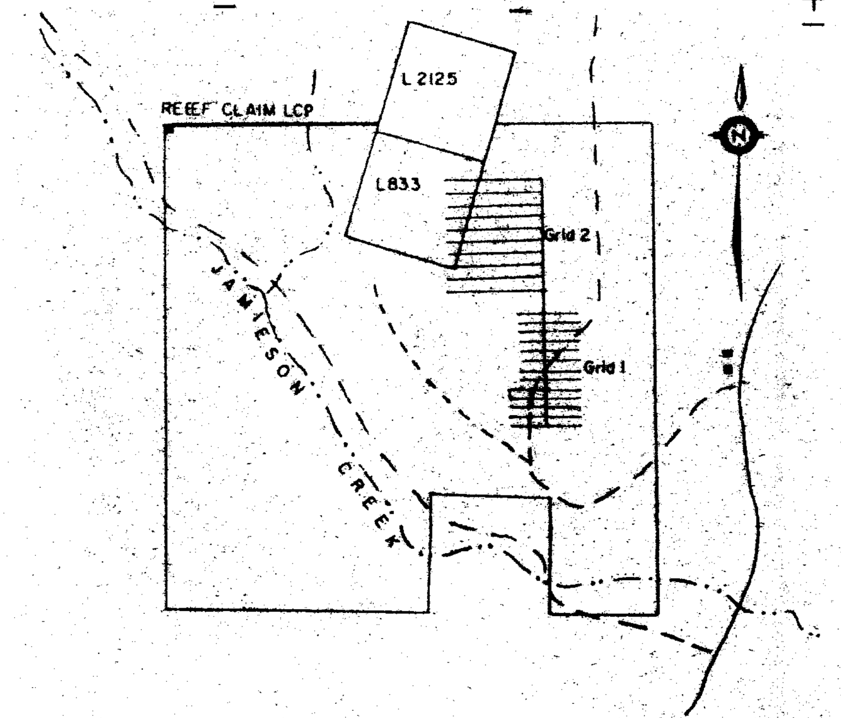
GRADIENT ARRAY
ELECTRODE CONFIGURATION



Spacing a = 20 meters

NOTES:

- Chargeability in msec.
- Contour interval: 10 msec.
- Instruments - Rx HUNTEC M-4; Tx HUNTEC M-4, 7.5 kw
- Time domain - freq. 1/8 Hz



PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — F. DISPIRITO

FIGURE 7

CASA GRANDE ENERGY & MINES LTD

REEF CLAIM
KAMLOOPS M.D. NTS 92 I/16W

I.P. EFFECT
GRID I

10 5 0 10 20m

To accompany a report by F. DISPIRITO P.Eng.
STRATO GEOLOGICAL ENGINEERING LTD.

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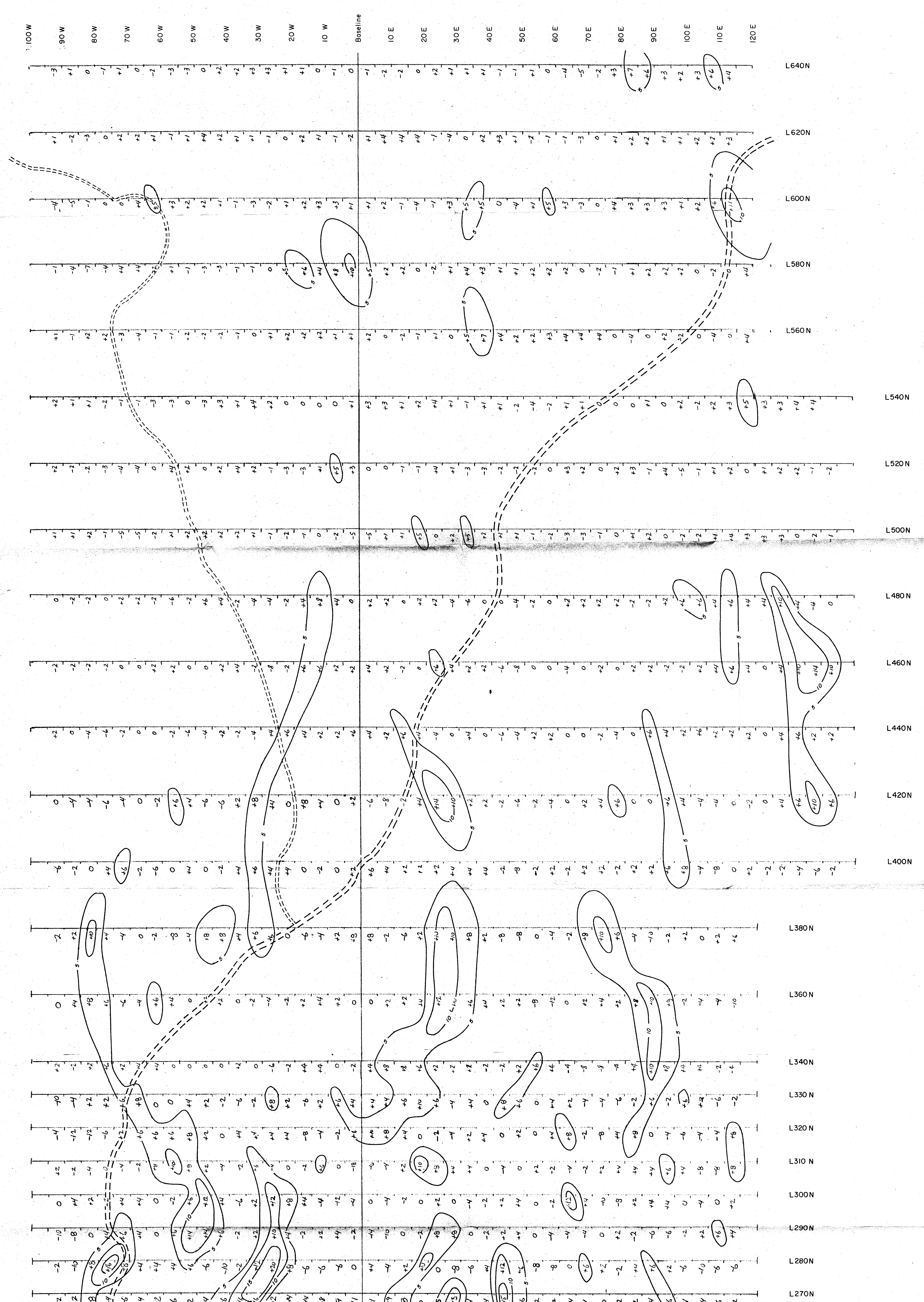
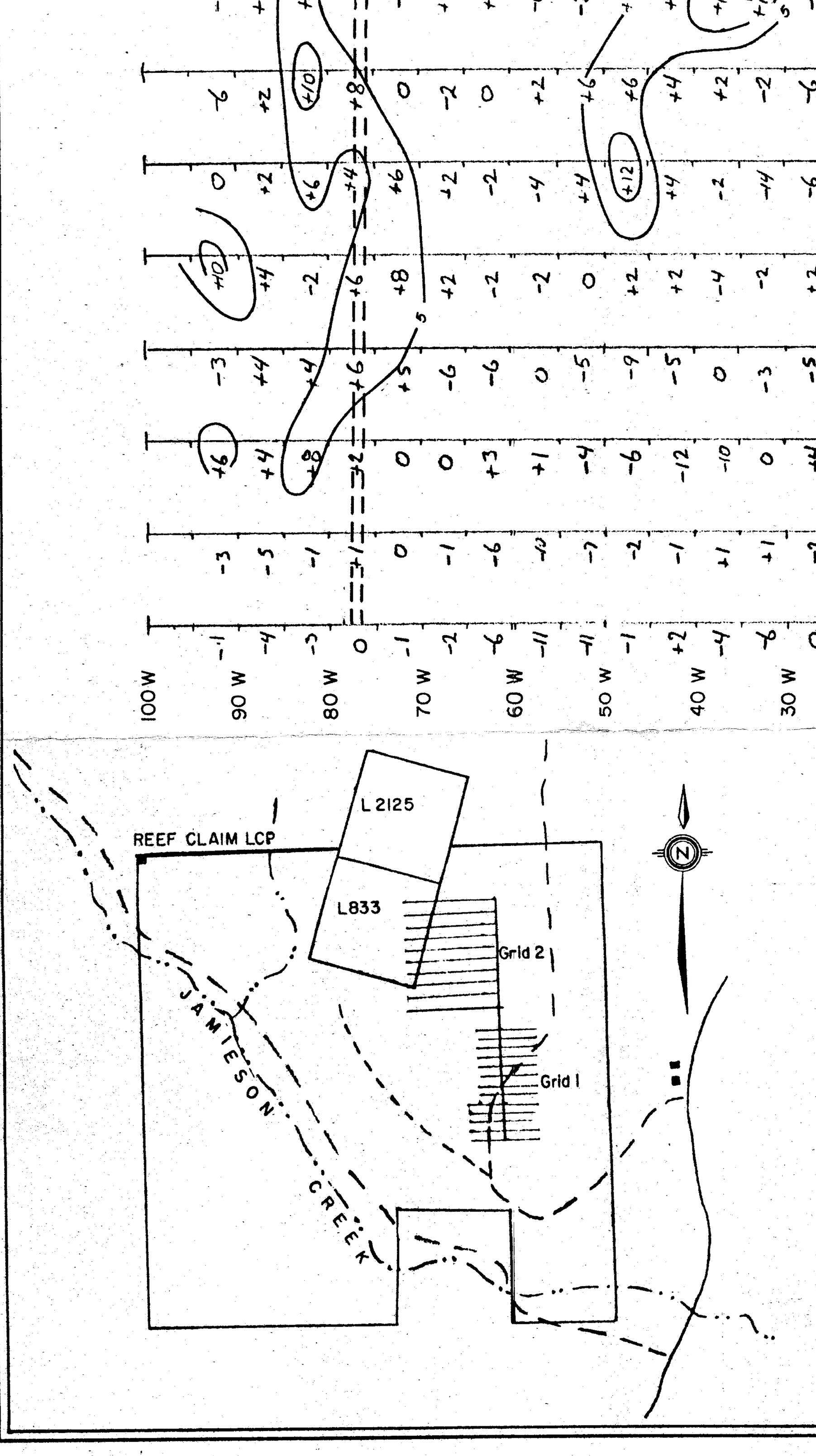




GEOLOGICAL BRANCH ASSESSMENT REPORT

14,241

LEGEND

Logging road

Secondary road

Station line and results

NOTES

Instrument - Sabre Electronics Model 27 Receiver
Transmitter - NPG, Jim Creek, Wash.
Frequency 24.8 KHz, Pwr. 250 Kw
Contour Interval - 5, 10, 15

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — F. DISPIRITO

FIGURE 6

CASA GRANDE ENERGY & MINES LTD.

REEF CLAIM
KAMLOOPS M.D. NTS 92 I/16 W

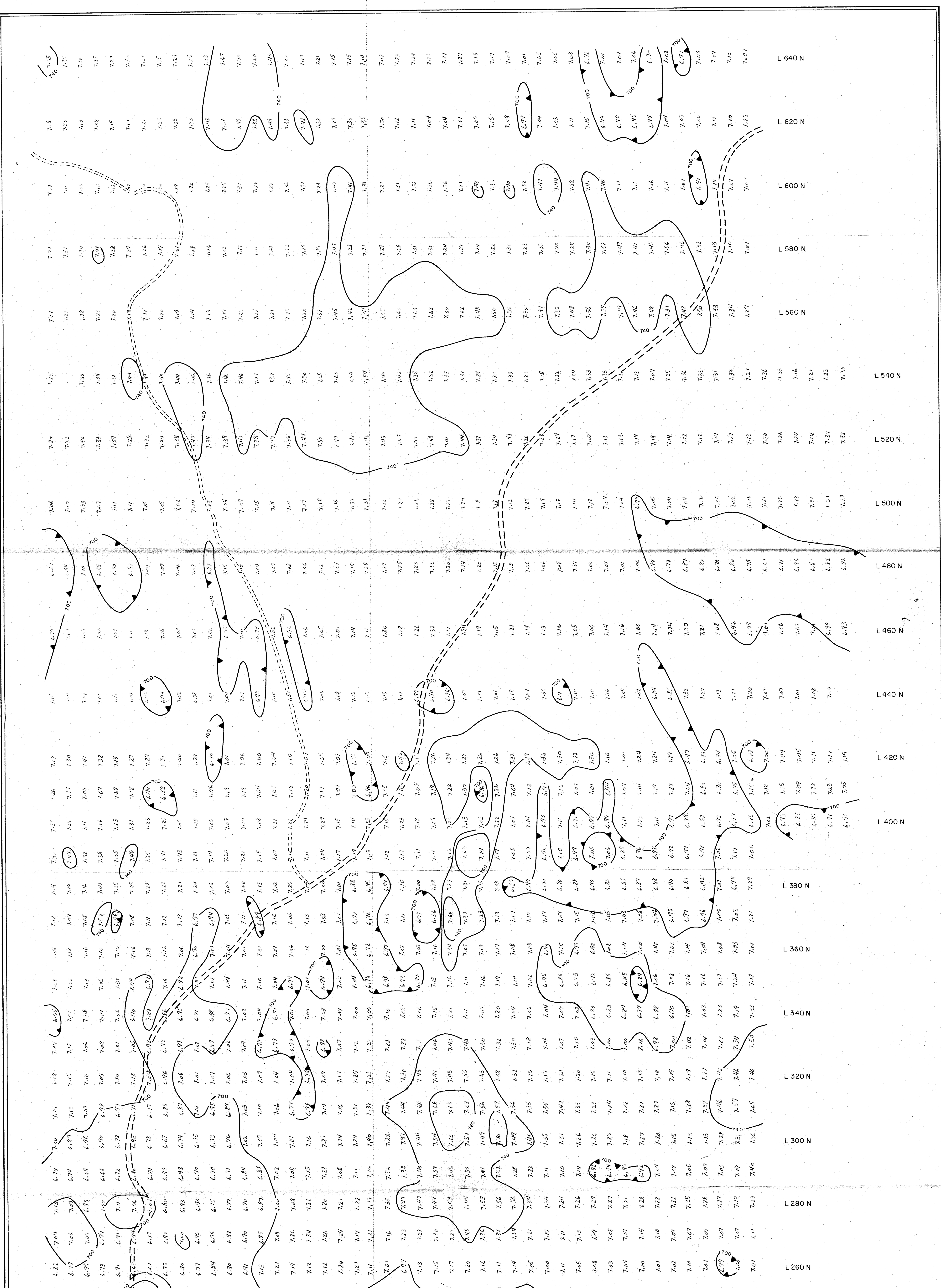
VLF-EM SURVEY — FRASER FILTER
CONTOUR MAP GRID I

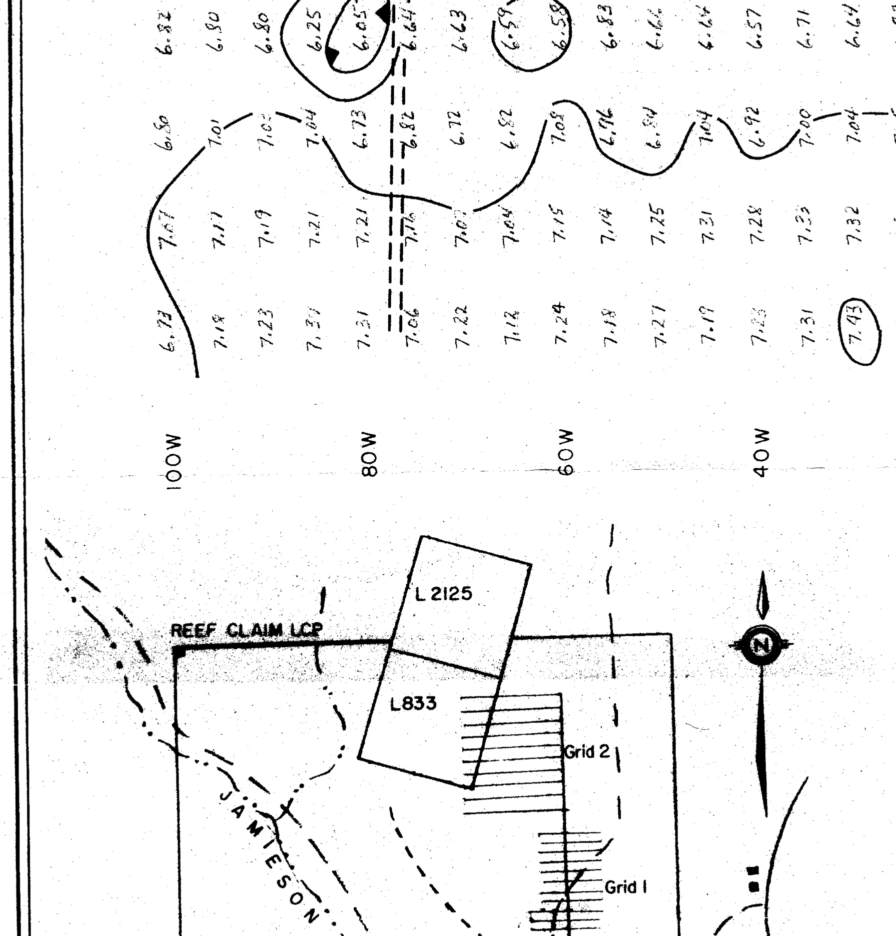
10 5 0 10 20 30m

To accompany a report by F. DISPIRITO P.Eng.
STRATO GEOLOGICAL ENGINEERING LTD.

DRAWN BY RE, SJO | DATED December 31, 1984

STRATO GEOLOGICAL ENGINEERING LTD.





GEOLOGICAL BRANCH
ASSESSMENT REPORT

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LEGEND

Logging road

Secondary road

Station line and magnetic reading

NOTES:

Instrument – Scintrex MP-2 Proton Magnetometer

Total field magnetic survey – Datum 57,000 gammas

Contour interval – 40 gammas

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PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO

FIGURE 5

CASA GRANDE ENERGY & MINES LTD.

REEF CLAIM
KAMLOOPS M.D. NTS 92 I/16 W

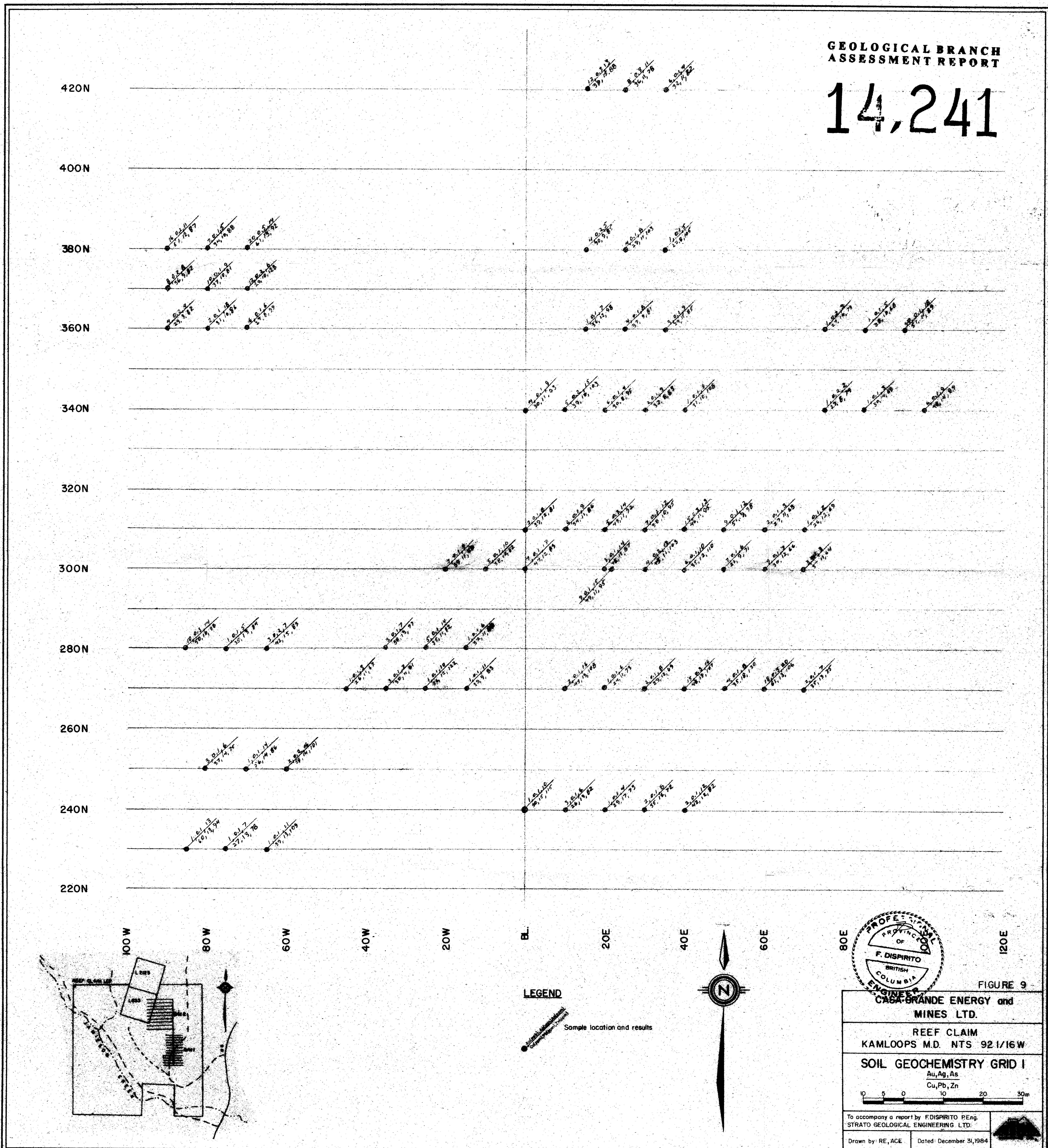
TOTAL FIELD MAGNETIC CONTOUR and DATA MAP GRID I

10 5 0 10 20 30m

To accompany a report by F. DISPIRITO P.Eng.
STRATO GEOLOGICAL ENGINEERING LTD.

DRAWN BY: R.E., A.C.E. | DATED: December 31, 1984

STRATO GEOLOGICAL ENGINEERING LTD.


GEOLOGICAL BRANCH
ASSESSMENT REPORT
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420N
400N
380N
360N
340N
320N
300N
280N
260N
240N
220N
100W
80W
60W
40W
20W
BL
20E
40E
60E
80E
120E
LEGEND
Sample location and results
N
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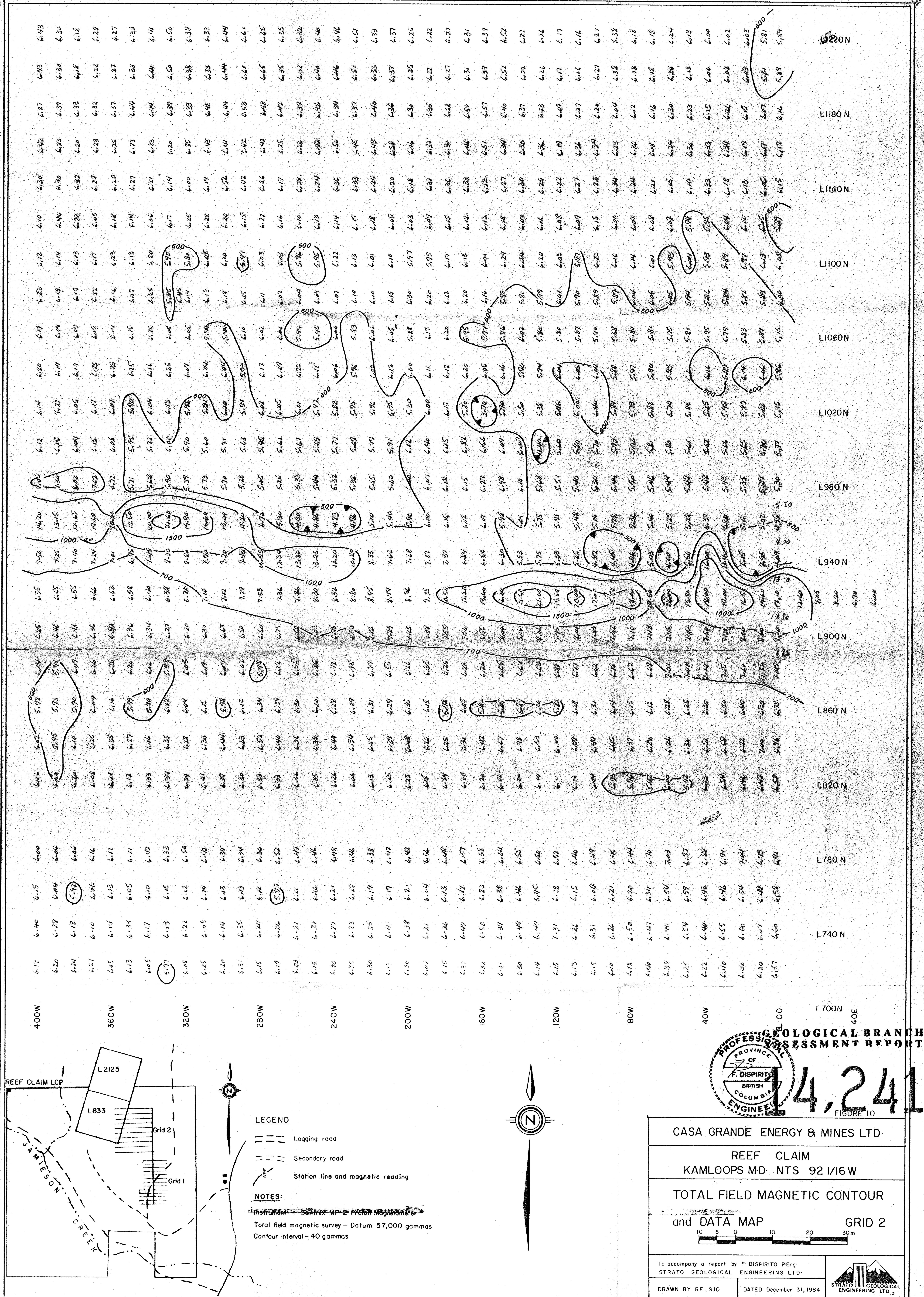
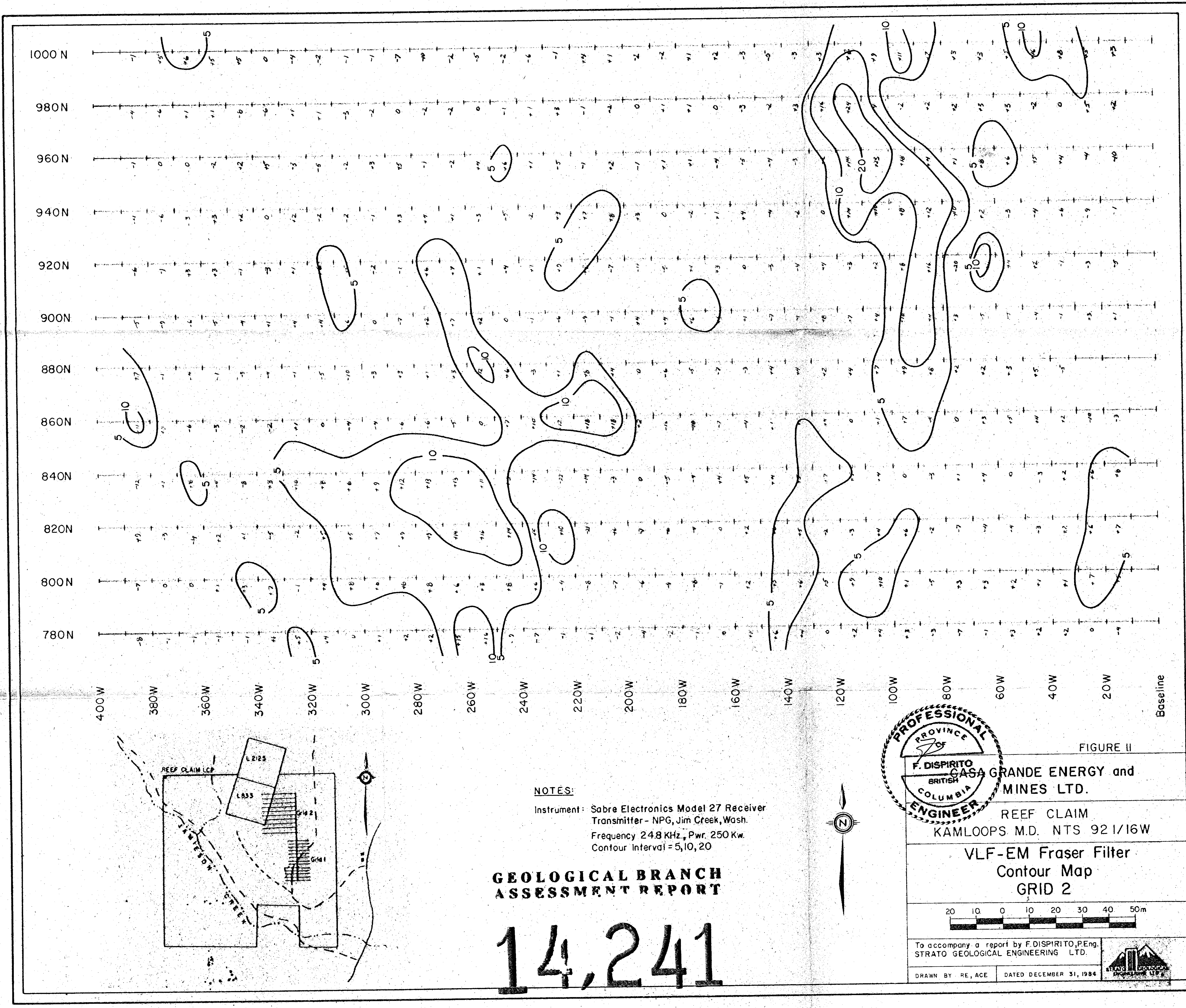
PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO
FIGURE 9
CASA GRANDE ENERGY and MINES LTD.
REEF CLAIM
KAMLOOPS M.D. NTS 92 I/16W
SOIL GEOCHEMISTRY GRID I
Au,Ag,As
Cu,Pb,Zn
10 5 0 10 20 30m
To accompany a report by F.DISPIRITO P.Eng.
STRATO GEOLOGICAL ENGINEERING LTD.
Drawn by: RE, ACE
Dated: December 31,1984



L1220N
L1180N
L1140N
L1100N
L1060N
L1020N
L980N
L940N
L900N
L860N
L820N
L780N
L740N
L700N
400W
360W
320W
280W
240W
200W
160W
120W
80W
40W
L 00
40E
REEF CLAIM LCP
L2125
L833
Grid 2
Grid 1
JAMIESON CREEK
LEGEND
Logging road
Secondary road
Station line and magnetic reading
NOTES:
Instrument - Scintrex MP-2 Proton Magnetometer
Total field magnetic survey - Datum 57,000 gammas
Contour interval - 40 gammas
GEOLOGICAL BRANCH ASSESSMENT REPORT
14,241
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO
FIGURE 10
CASA GRANDE ENERGY & MINES LTD.
REEF CLAIM
KAMLOOPS M.D. NTS 92 I/16 W
TOTAL FIELD MAGNETIC CONTOUR and DATA MAP
GRID 2
10 5 0 10 20 30m
To accompany a report by F. DISPIRITO P.Eng
STRATO GEOLOGICAL ENGINEERING LTD.
STRATO GEOLOGICAL ENGINEERING LTD.
DRAWN BY RE, SJO
DATED December 31, 1984


1000 N
980N
960N
940N
920N
900N
880N
860N
840N
820N
800N
780N
400W
380W
360W
340W
320W
300W
280W
260W
240W
220W
200W
180W
160W
140W
120W
100W
80W
60W
40W
20W
Baseline
REEF CLAIM LCP
L 2125
L 833
Grid 2
Grid 1
NOTES:
Instrument: Sabre Electronics Model 27 Receiver
Transmitter - NPG, Jim Creek, Wash.
Frequency 24.8 KHz., Pwr. 250 Kw.
Contour Interval = 5,10,20
GEOLOGICAL BRANCH
ASSESSMENT REPORT
14,241
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO
FIGURE II
CASA GRANDE ENERGY and MINES LTD.
REEF CLAIM
KAMLOOPS M.D. NTS 92 I/16W
VLF-EM Fraser Filter
Contour Map
GRID 2
20 10 0 10 20 30 40 50m
To accompany a report by F. DISPIRITO, P.Eng.
STRATO GEOLOGICAL ENGINEERING LTD.
DRAWN BY RE, ACE
DATED DECEMBER 31, 1984

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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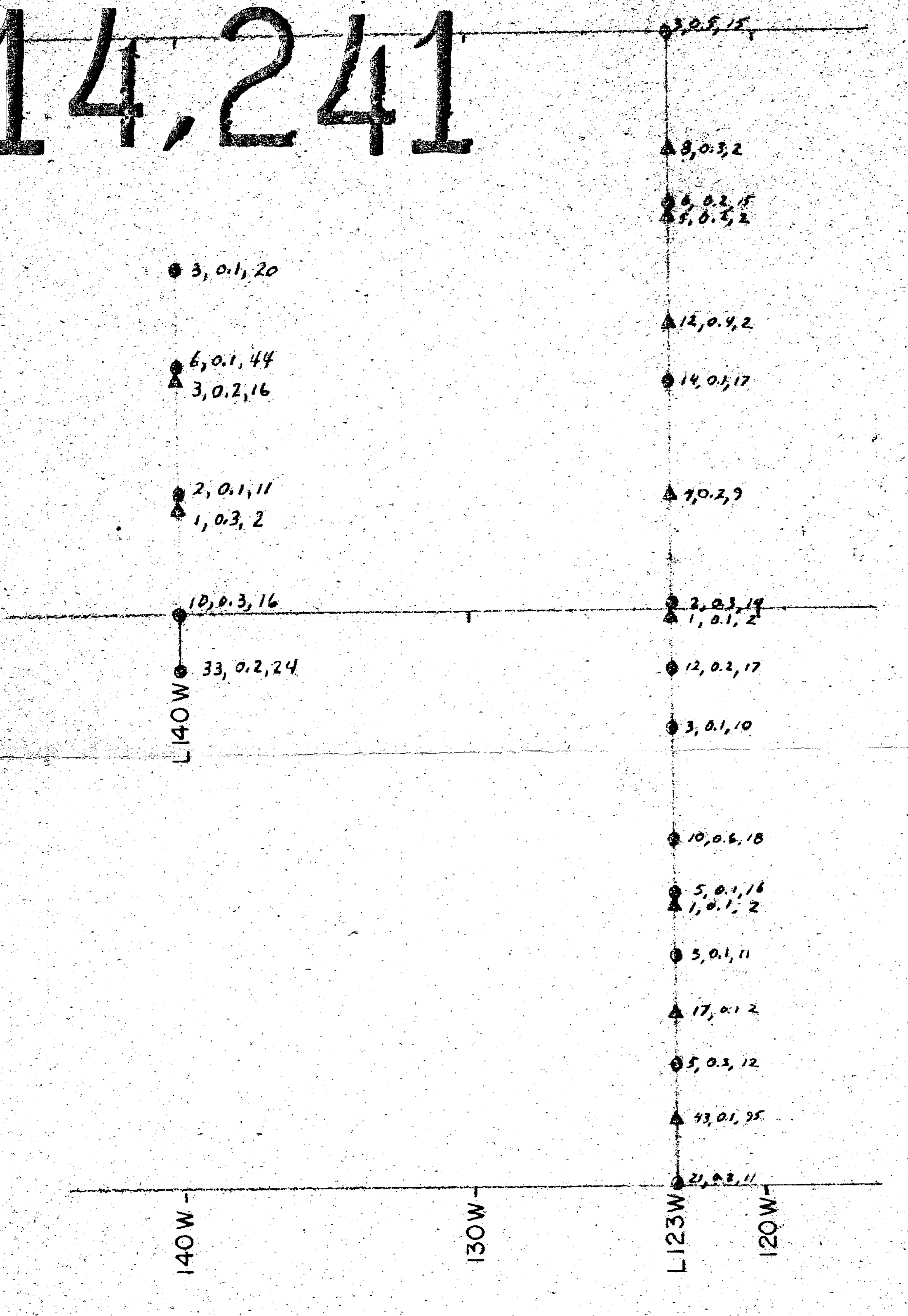
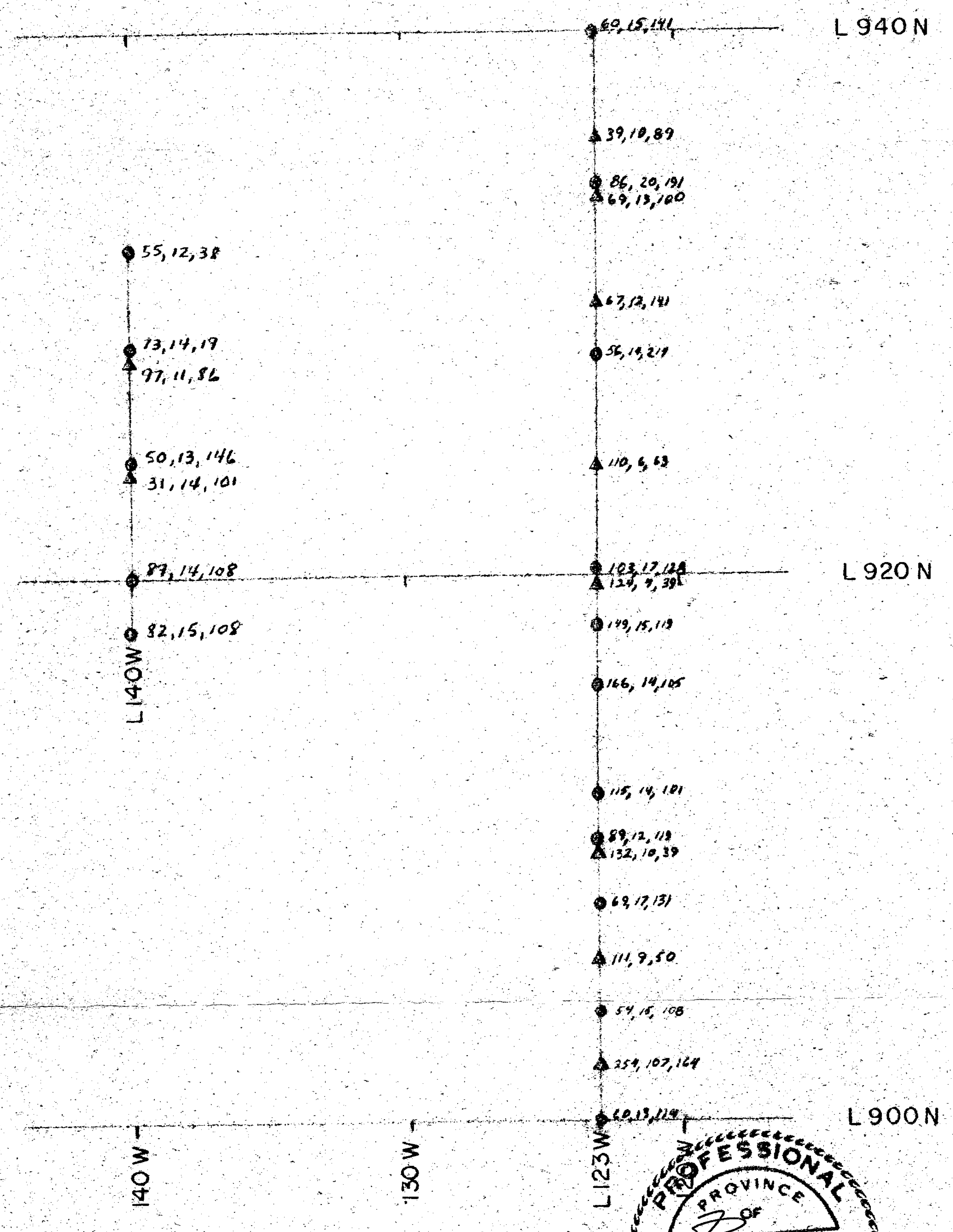


Au, Ag, As GEOCHEMISTRY



Cu, Pb, Zn GEOCHEMISTRY

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PROVINCE OF BRITISH COLUMBIA
F. DISPIRITO

LEGEND

● ··· Soil sample location

▲ ··· Rock sample location

STATION	25	0.6	42
	Au(ppb)	As(ppm)	As(ppm)
●	63	96	207
	Cu(ppm)	Pb(ppm)	Zn(ppm)

FIGURE 13

CASA GRANDE ENERGY and MINES LTD.

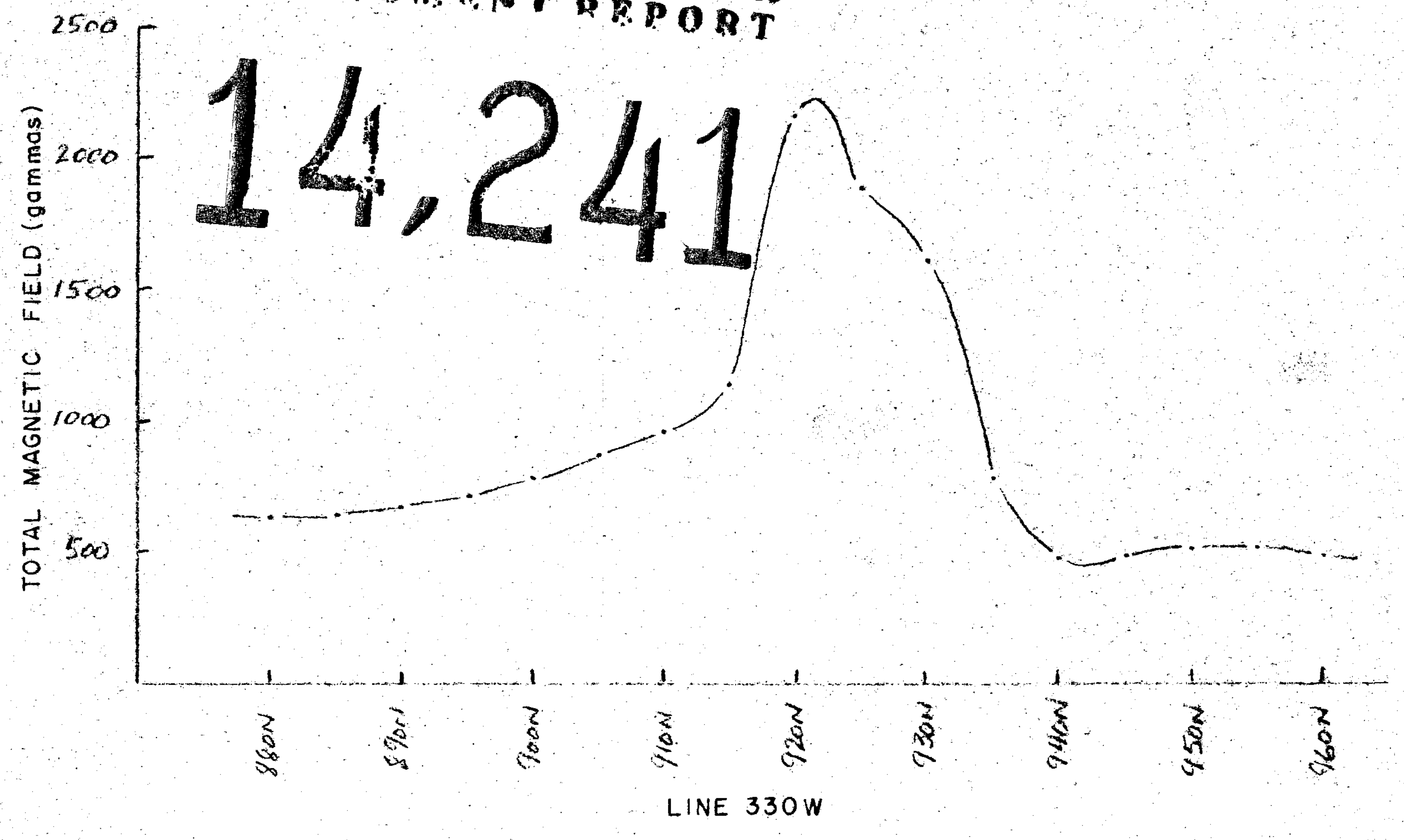
REEF CLAIM
KAMLOOPS M.D. NTS 92 I/16W

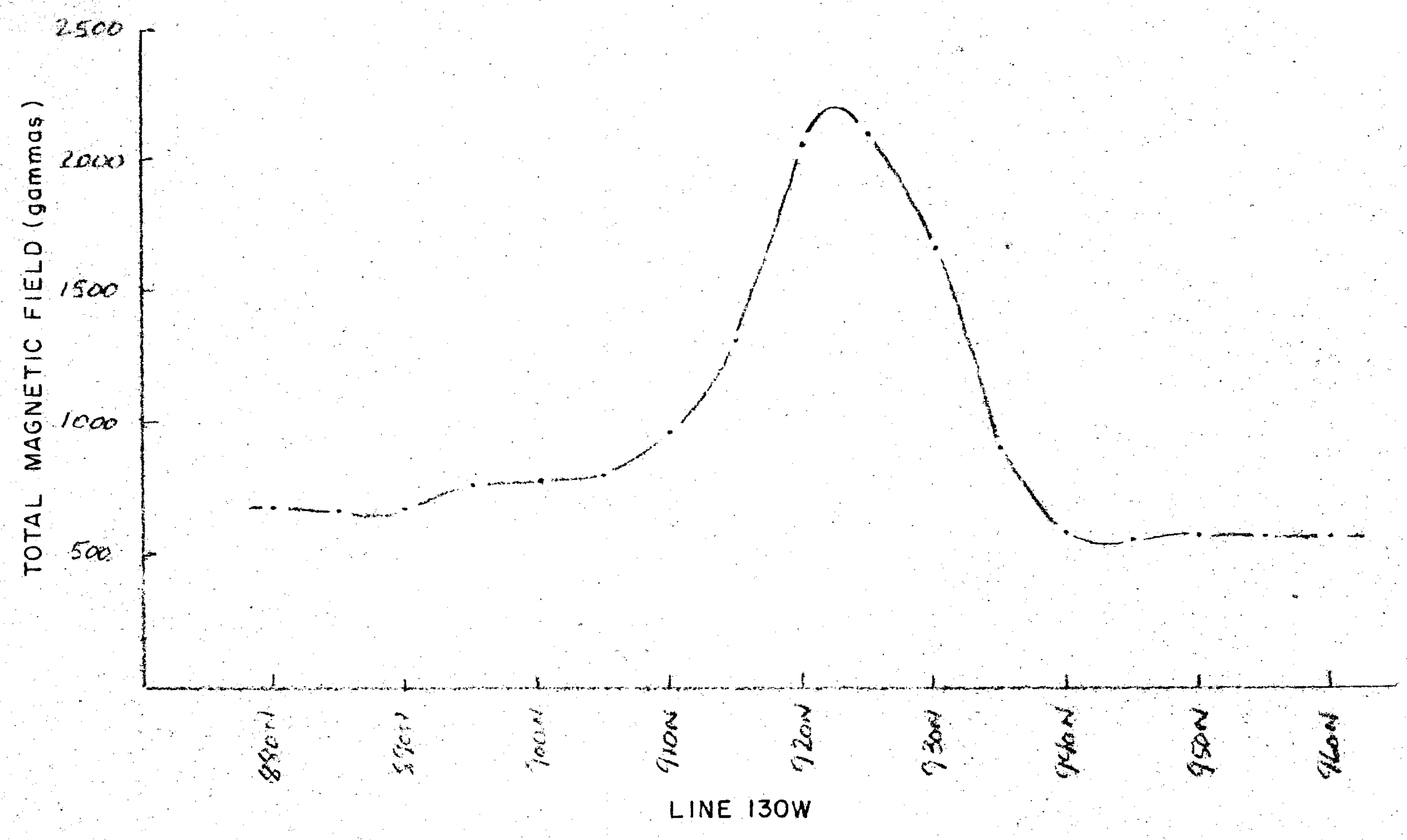
SOIL & ROCK GEOCHEMISTRY GRID 2

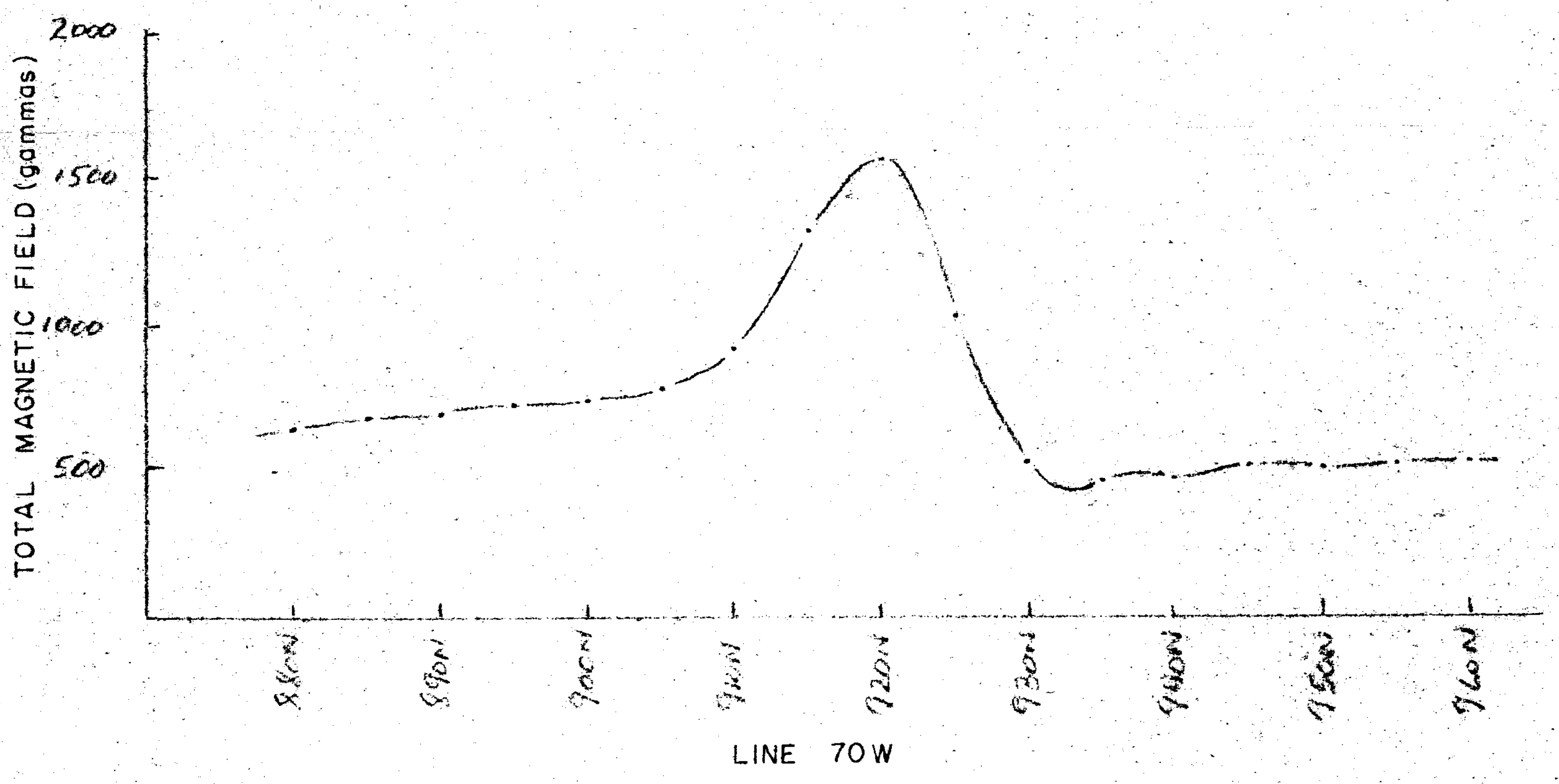
2 0 2 4 6 8 10 12 14m

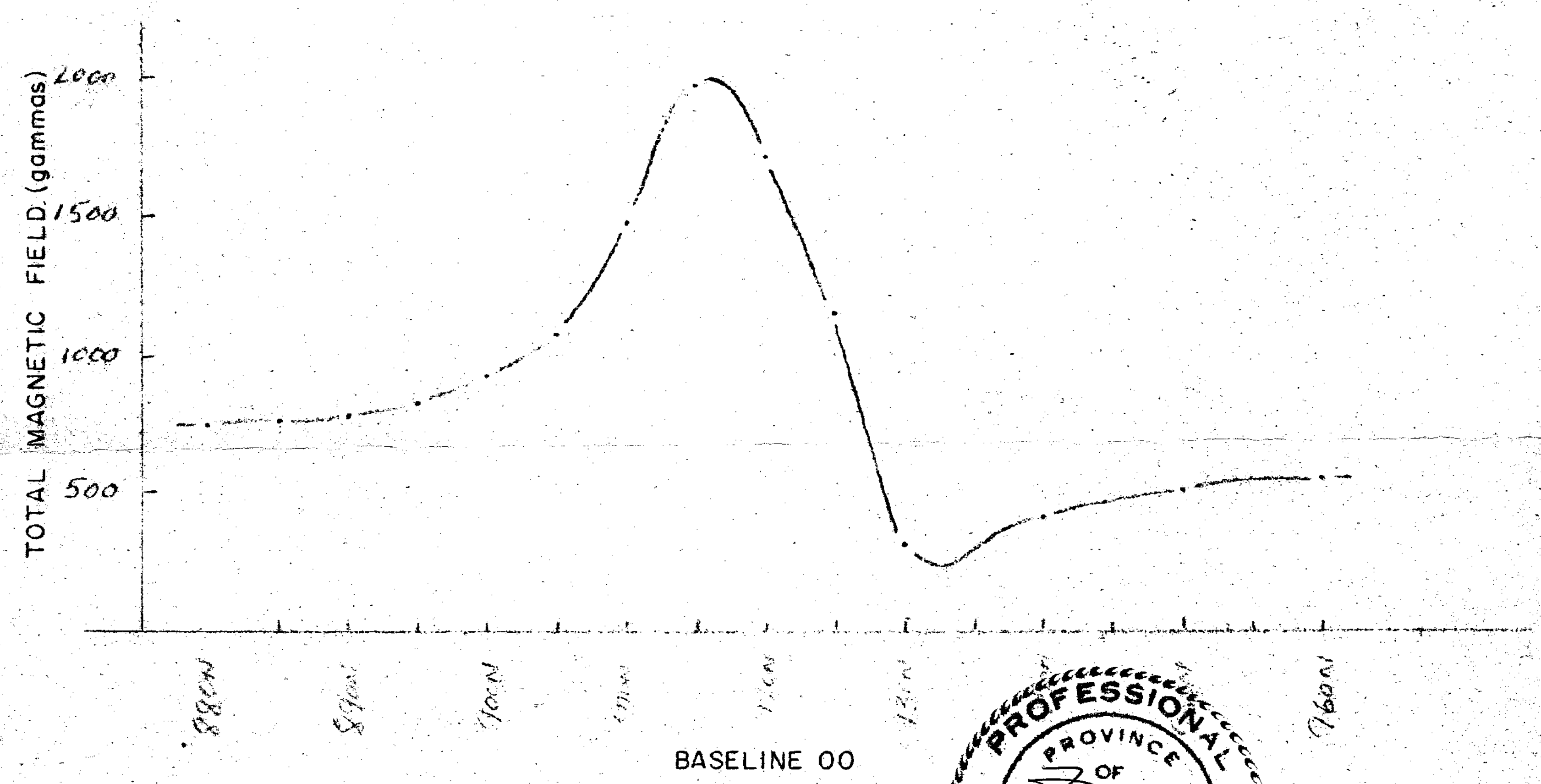
To accompany a report by F. DISPIRITO, P.Eng.
STRATO GEOLOGICAL ENGINEERING LTD.

DRAWN BY: R.E., B.K. DATED: DECEMBER 31, 1984









PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA F. DISPIRITO

FIGURE 12

CASA GRANDE ENERGY and MINES LTD.

REEF CLAIM
KAMLOOPS M.D. NTS 921/16W

MAGNETIC PROFILES
GRID 2

2 0 2 4 6 8 10 12 14 m

To accompany a report by F. DISPIRITO, P. Eng.
STRATO GEOLOGICAL ENGINEEGING LTD.

DRAWN BY: R.E., B.K. DATED: DECEMBER 31, 1984

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NOTES:

- Instrument: Scintrex MP-2 Proton Magnetometer
- Total Magnetic Field Survey: Datum 57000 gammas