SPARTON RESOURCES INC.

STRAW LAKE PROJECT
SUMMARY REPORT
1983 EXPLORATION PROGRAM

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LIST OF APPENDICIES

SPARTON RESOURCES INC.

STRAW LAKE PROJECT

SECTION 1

INTRODUCTION

1983 EXPLORATION PROGRAM

This report is presented to fullfill the requirements of The Ontario Mineral Exploration Program Act,1980 in Application for Grant or Certificate of Entitlement to Tax Credit for Designated Program OM83-3-C-113.

Application is made in the name of:

SPARTON RESOURCES INC.
520-67 RICHMOND STREET WEST
TORONTO,ONTARIO

LOCATION and ACCESS

The Straw Lake property is located in Northwest Ontario on N.T.S. 52 F/3. Straw Lake which is central to the property is approximately 65km due North of the Town of Fort Francis and 81km southwest of the Town of Dryden.

The property is accessable year round by car/truck either south from Hiway 17 at Dryden or north from Hiway 11 via Hiway 805 to Cedar Narrows Road. Cedar Narrows Road is a well maintained gravel road which transects the Straw Lake property.The northeast arm of Straw Lake,and the base camp are at km 42 of Cedar Narrows Road

PROPERTY

The Straw Lake claim group consists of 239 unpatented mining claims as follows:

K638827 - K638846	inclusive	20
K677701 - K677758	inclusive	58
K677776 - K677828	inclusive	53
K677850 - K677894	inclusive	45
K677910 - K677913	inclusive	4
K677925 - K677983	inclusive	59

All claims are recorded in the Kenora Mining Division on plans M-2469, M-2471,and M-2430.

GRID-LINECUTTING

An exploration grid has been established on all land and water claims. Line spacing is 100m with stations established at 25m intervals.The baseline trends east-west on grid sheets 1,2 and 3 and on the East Grid,and 070 on the West Grid and grid sheets 4,5 and 6.Cross lines are always perpendicular to the baselines.

SUMMARY OF EXPLORATION

This report details the results of a major exploration program undertaken by Sparton Resources Inc.Surveys include complete coverage of all claims with

Ontario Ministry of Natural Resources

Designated Program

AUG 09 1983

*Registration Number
OM83-3-C-113

The Ontario Mineral Exploration Program Act, 1980 and Regulations made thereunder.

STRAW LA

Applicant – Name

SPARTON RESOURCES INC.

Street Name and Number

500 - 67 RICHMOND ST. W.

City, Town, Village | Province

TORONTO | ONTARIO M5H 1Z5

The above named applicant's proposed mineral exploration program submitted on 83/07/13 (Year/Month/Day) on form OMEP1, and having met the requirements subject to The Ontario Mineral Exploration Program Act, 1980, and regulations made thereunder, has been approved and herewith certified and duly registered as a Designated Program.

Period of designation is from 83/07/12 (Year/Month/Day) to 83/12/31 (Year/Month/Day)

Maximum Grant and/or Tax Credit $ 92,500 25% of $370,000

83/08/05
Year/Month/Day

OMEP Director/Administrator

Applications for Grants or Tax Credits must be made within six months of the expiry date of the period of designation.

* Please refer to this number in all correspondence

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linecutting,VLF-EM and magnetometer surveys,complete coverage of all land claims with soil and organic surveys(1809 soil samples and 1610 humus samples) geological mapping and sampling on the west grid and grid sheets 1,2 and 3, detailed prospecting and rock sampling on grid sheets 4,5 and 6,35.6km of IP/ Resistivity survey,seven areas of stripping and sampleing,2000 feet of diamond drilling in 5 holes,and over 1000 rock assays.The remainder of this report details all work performed.

PREVIOUS WORK

1933 - 1941 The Straw Lake Beach Mine Syndicate

Formed in 1934 to explore and develop a gold occurance discovered by Murdock Mosher and Fred Grozelle on the southeast shore of Straw Lake in 1933. The Straw Lake Beach Mine became the second largest past-producing mine in the Kenora District.

The production history of the Straw Lake Beach Mine was:

1938 - 1941 11,568 oz gold from 33,662 tons (0.34 oz/ton)
1,049 oz silver

Workings consisted of a shaft to 723 feet with six levels and 4,631 feet of lateral development.

1934 - 1935 Vigor Property

On the Straw Lake property there are three patented claims (K4290 - 92). These claims are approximately 2km east of the southeast arm of Straw Lake. Records of assayed samples and channel samples dated 1934-35 are available through the Regional Geologist in Kenora.

1935 Ontario Department of Mines

In 1935 the ODM published a report entitled "Geology of the Straw-Manitou Lakes Area" followed in 1936 by "Rowan-Straw Lake Area".

1969 Canadian Nickel Company

CANICO drilled at least two holes in the area covered by the present claim group.CANICO drill hole 42727 intersected 11 feet of graphitic mafic volcanics.CANICO drill hole 32897 cut 105 feet of overburden and 26 feet of meta-dacite.No conductor was intersected.

1979 Freeport Canadian Exploration Co.

Freeport completed a Questor INPUT survey in May 1970,which covered the present Straw Lake property.Follow-up consisted of ground EM and magnetometer surveys and drilling. At least six drill holes were completed on the present property.All holes intersected graphitic slate or graphitic shear zones

SPARTON RESOURCES INC.

STRAW LAKE PROJECT

SECTION 2

GEOLOGICAL SURVEY

1983 EXPLORATION PROGRAM

Introduction

This section outlines the results of geological mapping, trenching and diamond drill programs completed on the Straw Lake claim group of Sparton Resources Inc. between May 1983 and December 1983. Other information from prospecting, geophysics and geochemistry completed during the same time period are encorporated in parts to justify the work performed.

General Geology

Geological mapping during the 1983 field season was completed on the western grid and grid sheets 1-3. These sheets correspond to L-0 to L-28W on the western grid and L-26W to L-32E on grid sheets one to three.

The general geology of the Straw Lake Area in the simplest terms is characterized as a greenstone belt lying between the Jackfish Lake-Weller Lake Pluton and the Lawrence Lake Batholith. Rock types are mainly interlayered, steeply dipping to vertical, mafic, intermediate and felsic metavolcanics, with intercalated metasediments. Distinguishing between crystal tuffs and metasediments is often difficult, especially where foliation and shearing are intense. A quartz-feldspar porphyry sill intrudes the volcanics and is identified physiographically as a ridge of resistant rock. Felsic intrusives (i.e. granites & rapikivi) occur at or near the contacts with the batholiths and near the Manitou fault. This brief overview of the Straw Lake geology will be discussed in more detail in the following section.

Mafic Volcanics

Throughout the mapped area on the Straw Lake property, mafic volcanics often occur as semi-continuous, inter fingered zones. Within zones of felsic volcanics the mafic volcanics usually appear as small pinch and swell or lenticular shaped bodies. More massive and larger conformably mafic units also occur.

Mafic volcanics on the Western Grid are an example of this later type of occurence. From north of Thompson Bay extending eastward, as far as the South-east corner of Yoke Lake, a well defined mafic volcanic unit is identified. In many areas this massive to foliated mafic tuff and lapilli tuff is difficult to distinguish from an intermediate volcanic. Based on poor exposure, and mineral variation between outcrops. The contacts are probably transitional rather than clearly observable contacts. Mapping in such a case becomes more concerned with describing variation between outcrops based on structure, alteration and mineralogy rather than rock type. Thus, throughout this grid, variations in chloritic alteration, quartz-carbonate fracture filling,

Mafic Volcanics (continued)

geophysical signatures and other basic structural and mineralogical changes are emphasized.

Mafic volcanics on sheets #1, 2 & 3 are more easily identifiable in outcrop. They are inter fingered and semi-continuous within zones of felsic volcanics.

SHEET #3 has three main mafic volcanic horizons. South-east of Floyd Lake, a massive, tuffaceous, mafic volcanic unit occurs close to the contact of the Lawrence Lake Batholith. This mafic tuff is extremely rich in chlorite and also displays minor disseminated pyrite and sericite. Further to the east, mafic volcanics are finer grained and are flows rather than pyroclastic. Also, on sheet three and south-east of Paleo Lake a foliated tuff with lapilli size fragments occurs. Characterically, this tuff contains chloritic blebs and carbonate along clevage planes, hematite staining and disseminated pyrite. These two mafic lithologies described are easily identified and from a continuous mappable unit.

Unlike the previously described mafic zone, a semi-continuous and inter fingered series of outcrops appear east of Rick Lake. Although not as massive and well defined, these scattered outcrops show similar traits. They tend to be tuffaceous with some lappilli size fragments, rich in chlorite and carbonate. A problem in identification of mafic volcanic rocks occurs to the S-E of Paleo Lake.

Similar to the problem identified on the west grid, distinguishing between intermediate and mafic volcanics is very subjective. Variations in amount of chlorite, quartz and sericite even within the same outcrop make this a difficult unit to map. Contacts, usually are not identifiable because they are transitional in nature. The contacts are subjectively plotted, based on mapping and geophysical results.

SHEET #2 reveils mafic volcanics that occue as narrow discontinuous zones within the felsic volcanics (east and west of Centre Lake). Characteristically, these mafic tuffs and flows are siliceous with hematite staining, plus, fracture fill quartz stringers and calcite. The same lithology is also observed north of Centre Lake. South of Centre Lake the mafic volcanics often contain lapilli size fragments and are weakly foliated. Morevoer, these rocks are rich in chlorite and carbonate.

SHEET #1 exhibits three main zones of mafic volcanics. North of the north east arm of Straw Lake discontinuous zone of mafic volcanics, these rocks like those described at other locations (on sheets #2 & 3) are within a zone of siliceous and chloritic felsic volcanics. A well defined ridge of mafic volcanics was mapped south of the south-east arm of Straw Lake. These rocks are thought to be a continuation of the mafic volcanics described on sheet #3, south east of Paleo Lake. Massive flows, and lapilli tuffs characterize the rock types. These rocks are foliated and carbonatized with chlorite rich alteration zones.

Intermediate Volcanics

Sheet #3 outlines an intermediate volcanic unit south-east of Paleo Lake. Bands of mafic flows and tuffs are interlayered with this unit. Although, not always easily identified as separate units, several major zones are outlined. This intermediate tuff, lapilli tuff is usually massive with zones of quartz-carbonate stringers. Hematite staining and chlorite alteration prevail throughout this unit with isolated showings of minor disseminated pyrite. This unit extends across sheet #2 and terminates north-west of Vigor Lake.

South of Floyd Lake and extending to the north-east, intermediate volcanics alternate with mafic tuffs and flows. These two units appear very similar in description, and in fact may be the same unit. This weakly foliated intermediate tuff has quartz-stringers, disseminated pyrite and, sericite and chlorite alteration.

North of Centre Lake (sheet #2) intermediate volcanics are found in semi-continuous bands throughout the felsic volcanics. Volcanic ash tuffs and crystal tuffs within this unit are foliated, siliceous, and hematite stained.

On the northern part of (Sheet #1) including the old mine area, siliceous intermediate crystal tuffs/tuffs are conformable with the felsic volcanics to the south. Lapilli size fragments were observed in some outcrops. Chlorite and sericite alteration, hematite staining, and minor pyrite

South of the south-east arm of Straw Lake (Sheet #1) a siliceous foliated, intermediate tuff is identified. This tuff contains quartz eyes, quartz stringers and veinlets. Sericite and carbonate are present. This unit again contains more mafic segments that are transitional to intermediate volcanics.

Foliated, siliceous intermediate tuffs and lapilli tuffs, cover most of the west grid. These tuffs are characterized by chlorite, sericite and carbonate alteration, and zones of minor pyrite.

Felsic Volcanics

The central part of the property, consists mostly of felsic volcanics. On grid sheet #1 felsic volcanics comprise the most abundant rock type with semi-continuous, interlayered intermediate volcanics. Weathered felsic volcanics generally appear beige to brownish beige, while mafic volcanics appear green. This central belt of felsic volcanics is characterized by very flat outcrops that are very difficult to sample.

Felsic Volcanics (continued)

Within this felsic belt there are zones of strong deformation (sericite-schist) where all primary structure is lost. These sericite schists are highly altered and sheared and are located in the narrowest section of the Straw Lake volcanic belt. (south of the north-east shore of Straw Lake). It is within this narrow zone that the maximum deformation has occured during tectonic events.

This central felsic zone is quite consistant in terms of rock type varying from a tuff to crystal tuff. These highly foliated siliceous felsic volcanics show a high degree of sericite alteration with lesser chlorite alteration. The chlorite occurs as "blebs". Pyrite mineralization varies throughout this unit area and in some areas is quite substantial.

A zone south of the north-east arm of Straw Lake, outcropping on Cedar Narros Road contains "bomb" size fragments. This siliceous felsic agglomerate (or breccia) is foliated and contains a good deal of sericite with some chlorite. However, this zone cannot be traced laterally due to deep till east and west of the outcrop.

Meta-Sediments

Meta-sediment underlying the Straw Lake property are usually thin units with limited strike length and generally found within felsic to intermediate volcanics. Sedimentary rocks within this environment tend to have a magnetic signature (probably magnetite). Metasediments south and west of Centre Lake are thought to be of volcanic origin. Metamophism has resulted in an abundance of sericite alteration usually observed as thin partings along shear planes. Inter-bedded within this unit lie thin arkosic beds. No grading is evident, however, current bedding was seen in one location. These sedimentary units represent periods of quisence in volcanic activity.

North and north-east of Centre Lake there are thin beds of volcanic meta sediments within felsic and intermediate volcanics (pit #2, 4, 5 and 6) contain. These siliceous volcanic metasediments contain cherty horizons. Cross bedding is identified within some beds (chert), interbeded sericite partings are commong.

The most prevalent sedimentary unit was mapped south of Paleo Lake. Within this lithological unit, foliated and silica rich siltstone/argillite beds are identified that are intercalated with cherty horizons. Sericite and chlorite alteration is observed. This unit has a weak magnetic attracation caused by very fine disseminated magnetite. This unit has a good magnetic signature. Furthermore, hematite staining and carbonates are also present throughout this sedimentary unit.

Intrusive Rocks

Feldspar Porphyry

A Feldspar porphyritic unit lies between Centre Lake and Rick Lake, this lithology appears to extend across Rick Lake. Massive to weakly foliated, this rock is either a thick flow or intrusive sill that displays the outcrops, however, a general trend is identified. The trend reveils a lack of porphoritic texture adjacent to the contacts, (north and south) with better porphoritic textures toward the centre of the unit to a maximum size of 1/2 cm. Stringers and veinlets of quartz are numberous with a great deal of chlorite alteration. These features are more evident near the margin of the unit.

Granitic Rocks

Granitic rock types are rare on the property. Only one true granite is identified. This felsic intrusive displays a rapikivi structure with feldspar laths up to 1.5 cm. in size. Located between L-16W and L-17W on Sheet #1 the rapikivi intrudes a mafic volcanic. It is thought that this intrusive may be related to the Manitou Stretch fault.

The only other location of granitic rocks in the mapped area is located at the southern boundary (contact) of the Lawrence Lake Batholith. This contact has a great deal of pyrite associated with it and tends to be concentrated in the mafic-intermediate volcanics to the south. The rock type is predominantly massive diorite in this area.

Structural Geology

The major structural feature identified on the Straw Lake Property is the Manitou Stretch - Pipestone Lake Fault. This regional strike-slip fault trends East-West from the Manitou Stretch, through between Vigor Lake and Rick Lake and into the south-east arm of Straw Lake across to Thompson Bay. This fault usually results in a high VLF-EM response, and a low magnetic response. The fault zone is generally parallel to subparallel to the regional stratigraphy. The fault zone was intersected in at least 3 diamond drill holes completed by Freeport Canadian Exploration Co. Each hole intersected a graphitic shear zone in mafic to intermediate volcanic.

The feldspar porphyry unit is post shearing and may have intruded into paleo-shear zones.

Identifiable by basic trends in strike, the supracrustal rocks north of the Manitou fault are wrapped around the Lawrence Lake Batholith. The strike turns noticibly tothe north-west near Yoke Lake and similarly turn to the north-east near Missus Lake.

Shearing occurs and is intensified adjacent to the fault zone (e.g. north of Manitou stretch) and in a zone where the supracrustal belt narrows south of the north-east arm of Straw Lake.

Structural Geology (continued)

Foliation is parrallel to bedding and is generally vertical to steeply North-South dipping. This dip reversal is due to a general warping of the stratigraphy and is not related to tight isoclinal folding. It is postulated that foliation is a result of regional stresses derived from the Jackfish Lake-Weller Lake complex to the south and the Lawrence Lake Batholith to the north and to the Manitou Strech-Pipestone Lake Fault. Extensive shearing grading to a schist and sericite-shist is identified in the narrowest section of the belt, south of the north-east arm of Straw Lake (L-18W to L-5E), however, highly intensive shear zones do ecist. Trenches #2, 4 & 5 expose narrow zones of highly sheared meta-sediments.

Contacts between the Lawrence Lake Batholith and the supracrustals were not seen. No hornfelsing is evident in the supracrustals towards the granitic contact.

Trenching

A tre-ching program was carried out on the Straw Lake property in the fall of 1983. Eight trenches (pits #1 to 8) were stripped with the aid of a Fiat-Allis 120 and two Cobra Drills provided holes for blasting within the stripped area. Two trenches (Pit #1 and #7) next to the road, were drilled with an airtrack drill.

Pit #1 (Table #1) located on L-7W extends from, 0 + 30 N to 0 + 35 S. Assays of samples tajen at one meter intervals failed to confirm a high soil geochemical anomaly (820 ppb) identified earlier that season. Geology within the trench is separated into two main units. A massive, mafic volcanic exibiting chloritic blebs and stringers and carbonate stringers, predominate the southern portion of the trench to 0 + 43 S to 0 + 85 S. The northern section of the trench (0 + 43S to 0 + 30N) is identified as a siliceous and well foliated felsic tuff to crystal tuff with sericite partings and carbonate stringers.

Pyrite mineralization within both lithologies is disseminated and fine grained. However, pyrite mineralization has a tendancy to associate with chlorite stringers in many sections. Quartz-carbonate stringers prevail with a tendancy to cross cut strike. Visual observation of the stringers and veinlets reveils a bullish quartz that is milky white and free of sulphides quartz.

Pit #2 located on L-6W (Table #2) extends from 5 + 08S to 5 + 37S. As with pits #2, #4, #5 (Tables #3, #4, #5), trenching occured as a result of a high soil geochemical anomaly. This zone has a shear zone within mafic and intermediate volcanics and intercalated sediments. Assays from previous mapping and prospecting also indicated the presence of an auriferous zone. Assays from all Pits (i.e. 2,3,4,5) contain trace amounts of gold except for Pit #2 (see Table #2).

These four pits form a composite cross-section of approximately 225 meters across strike. Geology from south to north changes from a predominantly volcanic meta-sediment (chert), to an intermediate mafic volcanic, then to an intermediate metasediment and finally a mafic-intermediate volcanic. The sedimentary units are intercalated and inconsistant along strike.

The cherty volcanic sediment is well bedded and contains quartz-carbonate stringers (Pit #2). Unlike the volcanic sediment, the intermediate mafic volcanic to the north is poorly foliated with sericite alteration and hematite staining (Pit #3 & #4). There are many quartz-carbonate stringers and a better developed foliation as one traverses north within the mafic unit. Volcanic sediments also exist as small pods within the mafic volcanic (4 + 25S Pit #3).

Further across strike in Pit #5, and intermediate metasediment is identified. This siliceous sediment has well developed bedding, sericite partings and hematite staining. A strong foliation continues into a siliceous mafic-intermediate volcanic, which has sericite alteration and hematite staining and minor carbonate.

Pit #6 (See table #6 & 6A) is located on L-3E and L-3 + 10E and extends from 3 + 28S to 3 + 54S. There are two distinct lithologies within the trench area. The most southernly unit (3 + 47S to 3 + 47 S), consists of an intermediate volcanic that is characterized by a strong foliation, quartz eyes, sericite and chlorite alteration. The second unit is a highly siliceous and foliated metasedimentary (cherty) band that exibits bedding, sericite developed along bedding, quartz eyes, pyrite and chloritic. This unit was prospected earlier in the season and returned gold assays of 0.09 and 0.01 oz/ton gold. No exposure of the southern contact lead to stripping across strike from the sediments to the volcanics. Extensive pyrite mineralization occurs near the contact and is mainly limited to the intermediate volcanics. However, there is minor fine grained disseminated pyrite mineralization throughout the sediment.

Pit #7 (table #7) is located on L-5W at 0 + 20N to 0 + 37N. This area was stripped and trenched based on an extremely high soil geochemical anomaly (820 ppb). Rock types include an intermediate tuff with a thin mafic unit between 0 + 32N to 0 + 34N. The intermediate tuff has a banding defined by chlorite with quartz stringers and minor disseminated pyrite. The mafic unit is equally foliated and contains the same relative amount of pyrite.

Pit #8 is a "Y" shaped trench that lies between L-16W and L-17W between 9 + 00S amd 10 + 00S. This trench was sampled to test a felsic intrusive rapikivi which intruded a mafic volcanic. The high degree of pyrite mineralization, coupled with gold assays of 0.01, 0.005, 0.005, 0.005 oz./ton suggested more work was need for a better assessment. Furthermore, a diamond drill hole just north of the trench drilled by Freeport minerals reported good mineralization, but failed to assay for gold.

The trenching program began in late autumn on the Straw Lake Property. Because of weather restrictions trenching was limited to the most easily accessable targets. Equally interesting zones further east have not yet been cleared.

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Drilling

A drill program to test several geophysical targets within a favourable geological environment was completed late in December 1983. Five diamond drill holes were drilled for a total of 1,593 feet. The diamond drill records, drill sections, fire assays and atomic absorption results, are appendixed to this report. The drilling did return gold values up to 0.30 oz/ton over a 5 foot core length.
Compatibility between fire assays and atomic absorption results, are for the most part quite good. However, some results (e.g. DDH #2, 197-205 ft.) do show discrepencies and as such require further investigation.

Conclusions

1. Follow-up trenching failed to confirm high values obtained from soiled and organic geochemistry.

2. Drilling did reveil some gold values, however, drilling was also shallow and limited. Many conductors still need further investigation.

Recommendations

1. Geological mapping and further prospecting on sheets #4, 5 and 6.

2. A lithogeochemistry program for all rock types on the Straw Lake Property.

3. HLEM survey over conductors on grid sheet 3 to verify VLF-EM anomalies.

4. Basal till sampling over I.P. and V.L.F. anomalies that were not drilled.

5. Continue I.P. survey from L-15W to L-26N north of Baseline.

6. Basal Till sampling/or sripping in the area east of the Cedar Narrows Road, on strike from the Straw Lake Beach Mines.

7. Detailed prospecting and stripping on IP anomalies on grid sheet 3.

Pit #1 at Line 7 West (0 + 85S 0 + 30N)

(TABLE #1)

Grid Location	Sample #	Assay (oz/ton)	Rock Type & Alterations
0 + 85 South	7W - 0 +85 -S	Trace	Mafic volcanic (foliated + hematite)
0 + 84 "	84	Trace	"
0 + 83 "	83	Trace	"
0 + 82 "	82	Trace	"
0 + 81 "	81	Trace	"
0 + 80 "	80	Trace	Mafic volcanic (foliated-hematite & magnetic zone)
0 + 79 "	79	Trace	"
0 + 78 "	78	Trace	"
0 + 77 "	77	Trace	"
0 + 76 "	76	Trace	"
0 + 75 "	75	Trace	Mafic volcanic (1% pyrite/foliated)
0 + 74 "	74	Trace	"
0 + 73 "	73	Trace	"
0 + 72 "	72	Trace	Mafic volcanic (slight foliation/chlorite)
0 + 71 "	71	Trace	"
0 + 70 "	70	Trace	"
0 + 69 "	69	Trace	"
0 + 68 "	68	Trace	"
0 + 67 "	67	Trace	"
0 + 66 "	66	Trace	"
0 + 65 "	65	Trace	"
0 + 64 "	64	Trace	Mafic volcanic (slight foliation/chlorite)
0 + 63 "	63	Trace	"
0 + 62 "	62	Trace	"
0 + 61 "	61	Trace	Interm-Mafic Volcanic Tuff (foliated & hematite staining
0 + 60 "	60	Trace	"
0 + 59 "	59	Trace	Mafic Volcanic (foliated/hematite qtz carbonate stringers)
0 + 58 "	58	Trace	"
0 + 57 "	57	Trace	"
0 + 56 "	56	Trace	"
0 + 55 "	55	Trace	"
0 + 54 "	54	Trace	Mafic Volcanic (py stringers/hematite)
0 + 53 "	53	Trace	"
0 + 52 "	52	Trace	"
0 + 51 "	51	Trace	"
0 + 50 "	#23	Trace	Mafic Volcanic (sheared/hemitite staining)
0 + 49 "	22	Trace	"
0 + 48 "	21	Trace	Mafic Volcanic (x-cutting qtz-chlorite veinlets
0 + 47 "	20	Trace	Massive Mafic Volcanic (f.g. chlorite/dissem. pyrite)
0 + 46 "	19	Trace	"
0 + 45 "	18	Trace	Well foliated tuff (qtz-carbonate/pyrite)
0 + 44 "	17	Trace	Intercalated tuff (py-carbonate-qtz)
0 + 43 "	16	Trace	" / qtz stringers/sericite
0 + 42 "	15	Trace	" minor py).
0 + 41 "	14	Trace	"
0 + 40 "	13	Trace	"
0 + 39 "	12	Trace	"
0 + 38 "	11	Trace	"
0 + 37 "	10	Trace	Felsic tuff (qtz.carbonate stringers/pyrite).
0 + 36 "	09	Trace	Felsic xstal tuff (siliceous/sericite/pyrite)
0 + 35 "	08	Trace	"

(TABLE #1 continued)

Grid Location	Sample #	Assay (oz/ton)	Rock Type & Alterations
0 + 34 South	#07	Trace	Felsic xstal tuff (siliceous/sericite/pyrite)
0 + 33 "	06	Trace	" " "
0 + 32 "	05	"	" " "
0 + 31 "	04	"	" " (foliated/pyrite)
0 + 30 "	03	"	" " "
0 + 29 "	02	"	" " "
0 + 28 "	01	"	" " "
0 + 27 "	30	"	Foliated felsic xstal tuff (pyrite)
0 + 26 "	29	"	" " "
0 + 25 "	28	"	" " "
0 + 24 "	27	"	" " "
0 + 23 "	26	"	Foliated felsic xstal tuff (pyrite)
0 + 22 "	25	"	" " "
0 + 21 "	24	"	" " "
0 + 20 "	5075	"	Felsic tuff (foliated/chlorite/pyrite)
0 + 19 "	5074	"	" " "
0 + 18 "	5073	"	" " "
0 + 17 "	5072	"	" " /sericite)
0 + 16 "	5071	"	" " /qtz vein)
0 + 15 "	5070	"	Felsic tuff (sericite banding)
0 + 14 "	5069	"	Felsic tuff (sericite + chlorite)
0 + 13 "	5068	"	" " "
0 + 12 "		"	
0 + 11 "		"	
0 + 10 "		"	
0 + 09 "		"	
0 + 08 "		"	
0 + 07 "	Not Sampled	"	
0 + 06 "		"	
0 + 05 "		"	
0 + 04 "		"	
0 + 03 "	5067	"	Felsic xstal tuff (chlorite/pyrite)
0 + 02 "	5066	"	" " "
0 + 01 "	5065	"	" " "
0 + 00 "	5064	"	" " (sericite/pyrite)
0 + 01 South	5063	"	" " "
0 + 02 "	5062	"	Xstal tuff (chlorite/pyrite).
0 + 03 "	5061	"	" " "
0 + 04 "	5060	"	" " "
0 + 05 "	5059	"	" " "
0 + 06 "	5058	"	Felsic xstal tuff (sericite/pyrite).
0 + 07 "	5057	"	" " "
0 + 08 "	5056	"	Felsic xstal tuff (sericite/minor py.)
0 + 09 "	5055	"	" " "
0 + 10 "	5054	"	" " "
0 + 11 "	5053	"	" " "
0 + 12 "	5052	"	" " "
0 + 13 "	5050	"	" " "
0 + 14 "	5149	"	" " "
0 + 15 "	5148	"	" " "
0 + 16 "	5147	"	" " "
0 + 17 "	5146	"	" " "
0 + 18 "	5145	"	" " "

(TABLE # 1 Continued)

Grid Location	Sample #	Assay (oz/ton)	Rock Type & Alterations
0 + 19 North	5137	Trace	f.g. xstal tuff (sulphides)
0 + 20 "	5136	Trace	" " /chlorite/sericite/pyrite).
0 + 21 "	5135	Trace	" " "
0 + 22 "	5134	"	x-stal tuff (sericite partings/chlorite/pyrite).
0 + 23 "	5133	"	" " "
0 + 24 "	5132	"	" " "
0 + 25 "	5131	"	" " "
0 + 26 "	5130	"	Sericite x-stal tuff (thin stringers pyrite).
0 + 27 "	5129	"	" " "
0 + 28 "	5128	"	" " "
0 + 29 "	5127	"	" " "
0 + 30 "	5126	"	" " "

Pit #2 at Line 6 West

(Table #2)

Grid Location	Sample #	Assay (oz/ton)	Rock Type & Alterations
5 + 08 South	10435	Trace	Felsic Volcanic (foliated sericite
5 + 09 "	10436	Trace	" carbonate)
5 + 10 "	10437	"	" "
5 + 11 "	10438	"	" "
5 + 12 "	10440	"	" qtz. vein)
5 + 13 "	10441	"	" "
5 + 17 "	10442	"	Mafic Volcanic (carbonate + py.
5 + 18 "	10443	"	" / foliated / hematite)
5 + 22 "	10444	"	" "
5 + 23 "	10445	"	Volcanic Sediments (chert)
5 + 24 "	10446	"	" "
5 + 25 "	10447	"	" (bedding chart)
5 + 26 "	10448	"	" "
5 + 27 "	10449	"	" "
5 + 28 "	10450	0.01	" "
5 + 29 "	10451	Trace	" "
5 + 30 "	10452	Trace	" "
5 + 31 "	10453	Trace	" "
5 + 32 "	10454	"	" "
5 + 33 "	10455	"	Massive beige carbonate (qtz stringers)
5 + 34 "	10456	"	" "
5 + 35 "	10457	"	" "
5 + 36 "	10458	"	" "
5 + 37 "	10459	"	" "

Pit #3 at Line 5 West

(TABLE #3)

Grid Location	Sample #	Assay (oz/ton)	Rock Type & Alterations
4 + 17 South	10409	Trace	Felsic volcanic (sericite - qtz)
4 + 18 "	10410	Trace	Intermediate volcanic (carbonate veinlets
4 + 19 "	10411	Trace	Intermediate mafic volcanic (massive)
4 + 20 "	10412	Trace	Intermediate felsic volcanic (qtz. carbonate)
4 + 21 "	10413	Trace	" " (hematite)
4 + 22 "	10414	Trace	" " (qtz.carb. veins)
4 + 23 "	10415	Trace	" " "
4 + 24 "	10416	Trace	Intermediate mafic (qtz. carbonate bands)
4 + 25 "	10419	Trace	Volcanic sediment (bedding)
4 + 26 "	10420	Trace	Intermediate volcanic (foliated/sericite)
4 + 27 "	10421	Trace	" " "
4 + 28 "	10422	Trace	" " "
4 + 29 "	10423	Trace	" " "
4 + 30 "	10424	Trace	" " "
4 + 31 "	10425	Trace	" " (hematite)
4 + 32 "	10426	Trace	" " "
4 + 33 "	10427	Trace	Intermediate mafic volcanics
4 + 34 "	10428	Trace	" " (foliated)
4 + 35 "	10429	Trace	" " "
4 + 36 "	10430	Trace	" " "
4 + 37 "	10431	Trace	Intermediate volcanic (poor foliation)
4 + 38 "	10432	Trace	" " "
4 + 39 "	10433	Trace	Intermediate mafic volcanic
4 + 40 "	10434	Trace	" " (carbonate)
4 + 24.5 "	10417	Trace	4" qtz vein/carbonate
4 + 23.5 "	10418	Trace	8" qtz vein/pyrite

Pit #4 at Line 4 West

(TABLE #4)

Grid Location	Sample #	Assay (oz/ton)	Rock Type & Alterations
4 + 06 South	10401	Trace	Intermediate volcanic (foliated/sericite)
4 + 07 "	10402	Trace	" " "
4 + 08 "	10403	Trace	" " "
4 + 09 "	10404	Trace	" " "
4 + 10 "	10405	Trace	Intermediate volcanic (hematite weathering)
4 + 11 "	10406	Trace	" " / carbonate)
4 + 12 "	10407	Trace	Felsic volcanic (sericite/qtz .)
4 + 13 "	10408	Trace	" " "

Pit #5 at Line 3 West

(Table #5)

Grid Location	Sample #	Assay (oz/ton)	Rock Type & Alterations
3 + 55 South	L3W-3+55-S	Trace	Mafic volcanic
3 + 51 "	51	Trace	Intermediate mafic volcanic
3 + 50 "	50	Trace	with hematite staing
3 + 49 "	49	Trace	" "
3 + 48 "	48	Trace	" "
3 + 47 "	47	Trace	" "
3 + 46 "	46	Trace	" "
3 + 45 "	45	Trace	Intermediate volcanic/siliceous
3 + 44 "	44	Trace	" " /sericite
3 + 43 "	43	Trace	" " /foliated/sericite
3 + 42 "	42	Trace	" " "
3 + 41 "	41	Trace	Intermediate metased (sericite + bedding)
3 + 40 "	40	Trace	" " "
3 + 39 "	39	Trace	" " "
3 + 38 "	38	Trace	" " "
3 + 37 "	37	Trace	" " "
3 + 36 "	36	Trace	" " "

Pit #6 at Line 3 East

(TABLE #6A)

Grid Location	Sample #	Assay (oz/ton)	Rock Type & Alterations
3 + 54 South	L3E-3+54S	Trace	Intermediate volcanic (siliceous/foliated/py.)
53	53	"	" " (qtz eyes)
52	52	"	" " (qtz eyes/sericite)
51	51	"	" " (foliation/serecite)
50	50	"	" " (serecite/qtz eyes)
49	49	"	(chlorite/qtz eyes)
48	48	"	" " "
47	47	"	Intermediate volcanic (chlorite/sericite)
46	46	"	Siliceous sediments (Bedded)
45	45	"	Intercalated (interm volcanic & seds)
44	44	"	" " + qtz veins
43	43	"	Siliceous seds (90% qtz)
42	42	"	Sediments (hematite/chlorite/py)
41	41	"	" " "
40	40	"	Siliceous seds (sericite/pyrite)
39	39	"	Intermediate volcanic (chlorite/hymatite)

Pit # 7 Line 5 West

(Table #7)

Grid Location	Sample #	Assay (oz/ton)	Rock Type & Alterations
0 + 20 North	L5W-0 + 20 N	Trace	Intermediate tuff (f.g. py./banded/chlorite)
21	21	Trace	" " "
22	22	Trace	" " "
23	23	"	" " "
24	24	"	f.g. intermediate tuff (pyrite/qtz. stringers)
25	25	"	" " "
26	26	"	Intermediate tuff (chlorite/qtz veins/pyrite)
27	27	"	" " "
28	28	"	" " "
29	29	"	" " "
30	30	"	" " "
31	31	"	" " "
32	32	"	Mafic foliated volcanic (pyrite)
33	33	"	" " "
34	34	"	" " "
35	35	"	Intermediate tuff (sericite/pyrite)
36	36	"	" " "
37	37	"	" " (pyrite stringers)

Pit #8 between 16 & 17 West / 9 & 10 S

Grid Location	Sample #	Assay (oz/ton)	Rock Type & Alterations
East pit # 1	10469	Trace	Mafic volcanic
2	10470	"	" "
3	10471	"	Mafic intermediate volcanic (2% pyrite)
4	10472	"	" "
5	10473	"	" "
6	10474	"	" "
West pit # 1	10475	"	Rapikiwi (1% pyrite)
2	10476	"	Rapikiwi - Mafic contact
3	10477	"	" "
4	10478	"	Mafic volcanic (pyrite)
5	10479	"	Rapiwiki - Mafic volcanic
South pit # 1	10480	"	f.g. siliceous intermediate volcanic

STRAW LAKE
SAMPLE DIARY
1983

TAG #	AU oz/t	AU ppb	LOCATION	DESCRIPTION
1	TR	-	TR-1 700W 0+28S	FELSIC TUFF,CHL,SER,FOLIATED
2	TR	-	29S	AS IN 28S
3	TR	-	30S	AS IN 28S
4	TR	-	31S	FELSIC TUFF,C.G.PY,INCREASE IN SER.
5	TR	-	32S	XTAL TUFF,VERY SILICEOUS & SERICITIC
6	TR	-	33S	AS IN 32S
7	TR	-	34S	AS IN 33S
8	TR	-	35S	AS IN 33S
9	TR	-	36S	XTAL TUFF,SILICEOUS,SER,CHL.
10	TR	-	37S	XTAL TUFF,Q-C STRINGERS,PY,HEM STAIN.
11	TR	-	38S	INTERB.FEL-INT.TUFF,QTZ-PY STRING.<.25"
12	TR	-	39S	AS IN 38S
13	TR	-	40S	AS IN 38S
14	TR	-	41S	AS IN 38S,LESS PY,Q-C STRINGS <.25",HEM.
15	TR	-	42S	QTZ.VEIN,30cm,HEM,CARB,MINOR PY.
16	TR	-	43S	QTZ STRINGER ZONE,HEM,SER,CHL,PY,.5-.75"
17	TR	-	44S	INTERM. VOLC.QTZ-CARB,MINOR PY
18	TR	-	45S	TUFF,QTZ-CARB,PY,HEM STAIN.
19	TR	-	46S	MAFIC VOLC.F.G.CHL,SI02,F.G.PY
20	TR	-	47S	AS IN 46S,X-CUTTING QTZ VEINS
21	TR	-	48S	MAFIC VOLC.X-CUTTING QTZ-CHL-PY VEINS
22	TR	-	49S	MAFIC VOLC.,SHEARED & FOLIATED,HEM.
23	TR	-	50S	AS IN 49S
	TR	-	51S	
	TR	-	52S	
	TR	-	53S	
	TR	-	54S	
	TR	-	55S	
	TR	-	56S	
	TR	-	57S	
	TR	-	58S	
	TR	-	59S	
	TR	-	60S	
	TR	-	61S	
	TR	-	62S	
	TR	-	63S	
	TR	-	64S	
	TR	-	65S	
	TR	-	66S	
	TR	-	67S	
	TR	-	68S	
	TR	-	69S	

	TR	-	70S	
	TR	-	71S	
	TR	-	72S	
	TR	-	73S	
	TR	-	74S	
	TR	-	75S	
	TR	-	76S	
	TR	-	77S	
	TR	-	78S	
	TR	-	79S	
	TR	-	80S	
	TR	-	81S	
	TR	-	82S	
	TR	-	83S	
	TR	-	84S	
	TR	-	85S	
24	TR	-	21S	FELSIC XTAL TUFF,SILICEOUS,2%PY
25	TR	-	22S	AS IN 22 S,LESS PYRITE
26	TR	-	23S	AS IN 21S,MORE CHL. AND PY
27	TR	-	24S	AS IN 23S
28	TR	-	25S	AS IN 24S, QTZ & CHL. STRINGERS
29	TR	-	26S	AS IN 25S,LESS CHLORITIC STRINGERS
30	TR	-	27S	AS IN 26S
38	TR	-	TR-6 310E 3+28S	INTERB.CHERT,SER,F.G.PYRITE,HEM.STAIN
39	TR	-	29S	AS SAMPLE 38
40	TR	-	30S	AS 0+31S
41	TR	-	31S	SILICEOUS METASED,CHERT,
42	TR	-	32S	MAFIC METASED,CHL.STRINGERS,QTZ EYES
43	TR	-	33S	SER BNDS WITH INTERM & MAFIC BNDS,CHL
44	TR	-	34S	SILICEOUS METASEDS,VERY SER & FOLIATED
45	TR	-	35S	SILICEOUS METASEDS,+ INTERM BEDS
46	TR	-	36S	SILICEOUS METASEDS,CHERT,CHL,HEM
47	TR	-	37S	MAFIC SEDS,QTZ.EYES,1% PYRITE
48	TR	-	38S	METASEDS,INTER-MAFIC,SER,QTZ EYES,PY
49	TR	-	39S	F.G.METASED,CHERT,SER,CHL,HEM.
50	TR	-	40S	CHERTY SED,BEDDING & XBED,MAFIC SEDS,PY
1A	TR	-	39S	INTERM.VOLC.CHL.STRINGERS,HEMATITE
2A	TR	-	40S	SILICEOUS METASEDS,CHERTY,SER,PY
3A	TR	-	41S	MAFIC METASED,HEM,CHL,F.G.PYRITE
4A	TR	-	42S	AS IN 41S
5A	TR	-	43S	SILICEOUS METASED,90%QTZ,CHL STRINGS,HEM
6A	TR	-	44S	INTERM.METASEDS INTERB MAF.PY,Q.V.,
7A	TR	-	45S	INTERMEDIATE VOLC. ,QTZ.EYES
8A	TR	-	46S	METASEDS,SILICEOUS,BEDDED HEM.STAIN
9A	TR	-	47S	INTERM.VOLC.CHLORITE,SERICITE
10A	TR	-	48S	AS IN 49S
11A	TR	-	49S	INTERM. VOLC.,CHL,QTZ.EYES
12A	TR	-	50S	INTERM.VOLC.SER,QTZ.EYES,
13A	TR	-	51S	INTERM.VOLC,QTZ.EYES,MINOR SER.

14A	TR	-		52S	SILICEOUS VOLC.QTZ.EYES,SER,CHL.
15A	TR	-		53S	SILICEOUS VOLC. AS 54S,
16A	TR	-		54S	SILICEOUS VOLC.,BNDED,CHL,F.G.PY
17A	TR	-	TR-5 300W	3+36S	INTERM.SED,SER,HEMATITE STAIN
18A	TR	-		37S	AS IN 36S
19A	TR	-		38S	AS IN 36S
20A	TR	-		39S	AS IN 36S
21A	TR	-		40S	AS IN 36S
22A	TR	-		41S	AS IN 40S,LESS WEATHERED
23A	TR	-		42S	SILICEOUS VOLC.SER ON FOL.PLANES
24A	TR	-		43S	SILICEOUS VOLC,VERY SERICITIC
25A	TR	-		44S	AS IN 43S
26A	TR	-		45S	AS IN 43S
27A	TR	-		46S	INTERM-MAFIC VOLC.,HEM STAINED
28A	TR	-		47S	AS IN 46S
29A	TR	-		48S	AS IN 46S
30A	TR	-		49S	AS IN 46S
31A	0.04	-		50S	AS IN 46S
32A	TR	-		51S	AS IN 46S
33A	TR	-	3+05W	3+55S	MAFIC VOLCANIC
189	<.005		TR-1		
190	<.005		TR-1		
191	<.005		TR-1		
192	<.005		TR-1		
193	-	25	TR-6	300E	CHERTY VOLC.OR SED
194	-	<5	TR-6	300E	QTZ-CARB-SER ROCK
195	-	10	TR-6	300E	V.F.GPY IN FEL.SED/TUFF
196	-	<5	TR-6	300E	CHERTY TUF/SED.SER,PY/CPY
197	-	<5	TR-6	300E	SIL/SER TUF/SED,V.F.G.PY
997	-	<5	TR-6	300E	V.F.G. FELSIC SED,CARB
998	-	<5	TR-6	300E	V.F.G. FELSIC SED/TUFF,CARB
999	-	<5	TR-6	300E	QTZ-CARB-SERICITE
1000	-	<5	TR-6	300E	SIL.SER-SCHIST,SED?
5052	TR	-	TR-1 700W	0+12N	SAME AS 0+16N
5053	TR	-		11N	SAME AS 0+16N
5054	TR	-		10N	SAME AS 0+16N
5055	TR	-		09N	FELSIC XTAL TUFF,SER,MIN C.G.PYRITE
5056	TR	-		08N	AS IN 09N STRONGER FOLIATION
5057	TR	-		07N	AS IN 08N
5058	TR	-		06N	AS IN 08N,MORE PYRITE
5059	TR	-		05N	XTAL TUFF,CHLORITIC,5-10% C.G. PYRITE
5060	TR	-		04N	AS IN 05N,LESS PYRITE
5061	TR	-		03N	AS IN 04N
5062	TR	-		02N	AS IN 04N,2"QTZ.VEIN,HEM,<1%PYRITE
5063	TR	-		01N	FELSIC XTAL TUFF,SERICITIZED,>1%PYRITE
5064	TR	-		00	AS IN 01N,WITH CHL,PY STRING.,<.25"
5065	TR	-		01S	XTAL TUFF,CHL,2-5%C.G.PY
5066	TR	-		02S	AS IN 01S,LESS CHL,MORE PY IN STRINGERS

5067	TR	-	03S	AS IN 02S
5068	TR	-	13S	FELSIC TUFF,>1%PY,SER,6"Q.V.,HEMATITE
5069	TR	-	14S	AS IN 13S PY ASSOC.WITH CHL BNDS,SER
5070	TR	-	15S	FELSIC TUFF,SERICITE BANDING,AS 14S
5071	TR	-	16S	FELSIC TUFF,SER & 3-5%PY,QTZ VEIN
5072	TR	-	17S	AS IN 16S,6"QTZ VEIN
5073	TR	-	18S	FELSIC TUFF,C.G.PY,CHL,HEM.
5074	TR	-	19S	FELSIC TUFF,MINOR PY,10% CHLORITE
5075	TR	-	20S	AS IN 19S:NARROW QTZ VEIN
5126	TR	-	30N	
5127	TR	-	29N	XTAL TUFF,SER,STRINS.OF PY/CHL,3%PYRITE
5128	TR	-	28N	SIMILAR TO 30N,WEATHERED PY,3-5% PY
5129	TR	-	27N	AS IN 30N,INCREASED CHL,<PY
5130	TR	-	26N	AS IN 30N >CHL,<2%PY,SER,HEM
5131	TR	-	25N	XTAL TUFF,<SER >CHL,LESS BEDDING
5132	TR	-	24N	OFFSET 1.5m E,XTAL TUFF,1%PY,SER,QTZ
5133	TR	-	23N	XTAL TUFF,SER PARTINGS,Q.V.,1%PY, QTZ
5134	TR	-	22N	OFFSET 3m W,XTAL TUFF,1%PY,QTZ,CHL,HEM
5135	TR	-	21N	OFFSET 3m W,XTAL TUFF,CHL,<5%PY,SER,QTZ
5136	TR	-	20N	OFFSET 3m W,AS 21N,C.G.PY,CHL,QTZ VEINS
5137	0.01	-	19N	OFFSET 3m W,XTAL TUFF,F.G.,1%PY
5145	TR	-	18N	FELSIC XTAL TUFF,OXIDIZED,SER,MIN PY
5146	TR	-	17N	FELSIC XTAL TUFF,LESS OXIDE TO SOUTH
5147	TR	-	16N	FELSIC XTAL TUFF,MINOR OXIDE & PY
5148	TR	-	15N	AS IN 16N
5149	TR	-	14N	AS IN 16N
5150	TR	-	13N	AS IN 16N
8109	<.005	MINDEL CORE		
9001	0.027	1900E 115N		FELSIC TUFF,HEMATITE,1-2% PYRITE
9002	0.05	1900E 490N		INTERMEDIATE LAPILLI TUFF,CHL,1%PYRITE
9003	0.02	2000E 400N		INTERMEDIATE LAPILLI TUFF 1% PYRITE
9004	0.005	2100E 300N		FEL.TUFF WITH INTER.TUFF 2%PYRITE
9005	0.01	2800E 1000N		MAFIC INT/FELDS.PORPH,CHL,1-2% PYRITE
9006	TR	2800E 950N		MASSIVE F.G.INTERM. TUFF 2-3% PYRITE
9007	0.005	1000E 650S		V.F.G.CHERTY SEDIMENT 1% PYRITE
9008	TR	2700W2 060S		INTERM.TUFF <1%PY.,CARB-CHL.
9009	0.01	2050W2 200S		V.F.G. SEDIMENT INTERBEDDED, M.A.
9010	0.02	PM-84		FELSIC TUFF,SERICITE,1%PY,FE-OXIDE
9011	TR	2600W2 025N		CHLORITIC MAF.VOLC.,QTZ STRINGERS,1%PY
9012	TR	PM-86		QTZ VEIN IN FEL-INTER TUFF,CHERT?
9013	NIL	PM-87		MASSIVE F.G. MAFIC TUFF,QTZ STRINGERS
9014	0.185	KONIGSON		SERICITE SCHIST 20% PYRITE;MINE SITE
9015	0.33	KONIGSON		Q.V. IN INTERM.TUFF <=50% PYRITE
9016	0.005	2100W2 200N		INTER-MAF VOLC.,CHL,HEM,<1% PYRITE
9017	0.005	2100W2 320N		V.F.G. MAFIC VOLCANIC 1%PYRITE
9018	TR	PM-92		F.G. MAFIC VOLCANIC <1% PYRITE
9019	0.005	1500W2 375N		INTERMEDIATE TUFF ;CHLORITE,<1% PYRITE

9020	TR	1600W2 650N	GOSSAN IN INTER-MAFIC TUFF;<1% PYRITE
9021	TR	1725W2 275N	INTERM.TUFF & XTAL TUFF<1% PYRITE
9022	NIL	1850W2 205N	V.F.G MAFIC VOLCANIC;MASSIVE-FOLIATED
9023	TR	2000W2 545N	F.G.XTAL TUFF;BRECCIATED,<1% PYRITE
9024	TR	2000W2 435N	INTERM.TUFF;SERICITE,<1% PYRITE
9025	TR	1740W 975S	FLOAT-F.G.INTERM.VOLC.PYRITE
9026	TR	1780W 975S	INTERMEDIATE VOLCANIC;C.G.PYRITE
9027	TR	1670W 1050S	F.G.INTERMEDIATE VOLC.+ QTZ VEIN
9028	TR	1765W BL00	SERICITIZED FELSIC VOLCANICS
9029	TR	2500W 060S	QTZ.VEIN IN F.G.MAFIC VOLCANIC
9030	TR	500W 083S	CARBONACEOUS INTERM.VOLC,1%PY,CONC.Q.V.
9031	0.005	K4016-17	PATENT:FEL.TUFF;X-CUT.Q.V.3%PYRITE
9032	0.04	K4016-17	PATENT:SERICITE SCH.CARB,2%PYRITE
9033	0.04	K4016-17	PATENT:QTZ VEIN IN TRENCH,WHITE-BULL
9034	0.03	K4016-17	FELSIC TUFF,CHLORITIC,3% PYRITE
9035	0.05	K4016-17	FELSIC TUFF,QTZ.STRINGS,SIDER,SER,
9036	0.09	310E 330S	FELSIC VOLCANIC SEDIMENT
9037	0.01	300E 385S	FELDSPAR PORPHYRY
9038	TR	475E 175S	FELDSPAR PORPHYRY
9039	TR	915E 550S	Q.V.IN TRENCH,FEL-MAFIC COUNTRY ROCK
9040	TR	?	CHANNEL-QTZ.VEIN IN FELSIC VOL.HOST
9041	TR	1590W 915S	V.F.G. XTAL TUFF <=3% PYRITE
9042	0.005	1630W 985S	FELSIC TUFF ; BRECCIATED,<1% PYRITE
9043	TR	308E 648S	FELDSPAR PORPHYRY
9044	TR	620E 540S	MICRO-FELDSPAR PORPHYRY <1% PYRITE
9045	TR	890E 550S	QTZ.VEIN 6'WIDE
9046	TR	530E 225N	INTERMEDIATE VOLCANIC TUFF 1% PYRITE
9047	TR	2500W 1340S	SERICITIZED FELSIC TUFF
9048	0.005	1600W 900S	FELSIC-INTERMEDIATE VOLCANIC <1% PYRITE
9049	TR	1290E 075S	INTERM.TUFF;LAMINATED AND FOLIATED,CARB
9050	0.005	1500E 675S	SERICITZED &CHLORITIZED FEL-INT.TUFF
9051	0.005	300E 600S	MASSIVE MICRO FELDSPAR PORPHYRY
9052	0.01	1625W 905S	LAMINATED V.F.G.FEL.XTAL TUFF(SED ?)2%PY
9053	0.01	MINDEL CORE	BETWEEN WEST AND CENTRAL HOLE IN TRENCH
9054	TR	MINDEL CORE	AS 9053
9055	TR	620W 515S	FINELY LAMINATED FELSIC TUFF (SED ?)
9056	TR	360W 410S	FELSIC-INTERNEDIATE TUFF;SHEAR ZONE
9057	0.005	700W 550S	FELSIC TUFF ; SILICEOUS
9058	0.005	500E 220N	FLOAT- SILICEOUS MAFIC VOLC. <1% PYRITE
9059	0.005	600W 550S	FELSIC TUFF;STRONG FOIATION,HEMATITE
9060	TR	398W 411S	SHEAR ZONE IN FELSIC TUFF
9061	TR	425W 335S	FELSIC TUFF;STRONG FOLIATION
9062	TR	1320E 050S	FELSIC TUFF;STRONG FOLIATION
9063	TR	300E 600S	INTERMEDIATE TUFF ;FOLIATED,CARBONATE
9064	TR	390E 793S	FELDSPAR PORPHYRY
9065	TR	1000E 550S	MICRO-FELDSPAR PORPHYRY
9066	TR	1165E	EAST OF LAKE:QUARTZ (?)
9071	TR	2690E 1230S	MASS.MAFIC TUFF QTZ STRINGS.<1% PY,CARB
9072	0.005	2680E 1215S	INT-MAFIC TUFF CHL,FE OXIDE,1% PYRITE
9073	TR	2375E 975S	INTER-MAFIC TUFF WEAKLY CARBONATIZED
9074	TR	2470E 1085S	V.F.G.MAFIC FLOW SILICEOUS,CARBONATE.
9075	TR	2465E 1235S	F.G.MAFIC TUFF 2-3% PY,FOLIATED

9076	TR		1005E BL00	FELSITE:STRONG FOIATION,POSS.OLD TRENCH
9077	TR		3015E 310S	FELSIC-INTER TUFF V.F.G.<1%PY,SERICITE
9078	TR		3225E 405S	V.F.G.MASSIVE,INTERM.VOLC. C03,<1%PYRITE
9079	TR		3210E 450S	INTERM.TUFF CHL,SI02,11% PYRITE
9080	TR		3170E 345S	FELSIC TUFF,SERICITIZED,FE203,QTZ.
9081	NIL		3003E 300S	FELSIC TUFF <1%PYRITE
9082	NIL		3175E 300S	FELSIC TUFF HEAVY OXIDE
9083	TR		3210E 243S	FELSIC TUFF,HEAVY OXIDE
9084	TR		2600E 1200S	V.F.G.MAFIC VOLC.,C03,<1%PYRITE
9085	TR		2500E 1475S	MAFIC VOLCANIC,CHLORITIZED,C03
9086	TR		2400E 1270S	MAFIC TUFF,STRONG CHORITIZATION
9087	NIL		1120W 320N	SED ?,INTER-FEL VOLC.HIGHLY OXIDIZED
9088	NIL		2980E 855S	INTERM TUFF ADJ.TO QTARTZ VEIN
9089	NIL		1050W 048N	FELSITE,XTAL TUFF,LAPILLI SIZE FRAGS.
9090	NIL		1095W 012S	FELSIC TUFF ,SERICITE,1-2% PYRITE
9091	TR		1095W 322N	INTERMEDIATE TUFF 2-3% PYRITE
9092	TR		1035W 150N	INTERMEDIATE TUFF 2% PYRITE
9093	TR		3000E 920S	INTERMEDIATE TUFF <1% PYRITE
9094	TR		ROAD CONST.	MASSIVE SULPHIDE
9095	TR		ROAD	CEDAR NARROWS ROAD GOSSAN
9096	0.005		3185E 440S	INTERMEDIATE TUFF <1% PYRITE
9097	NIL		1080W 308N	FELSIC XTAL TUFF,SERICITE,2-5% PYRITE
9098	NIL		ROAD	ROAD CONSTRUCTION:LOVEGAYS DIORITE
9099	NIL		ROAD	AS 9098
9100	NIL		ROAD	ROAD CONSTRUCTION
9101	0.174	>1000	MILL SLOPE	SULPHIDE MUD
9102	6.41	>1000	MINE DUMP	QTZ VEIN FROM 9101,GLASSY,SER.ON EDGES
9103	0.480	>1000	MINE DUMP	SERICITIZED FELSIC TUFF,PYRITIC
9104	-	67	MINE DUMP	C.G.PY IN Q-C VEIN,IN SER-CHL-SCHIST
9105	0.012	432	MINE DUMP	C.G PY.IN SERICITIC FELSIC TUFF
9106	0.061	>1000	MIME DUMP	PY.IN Q.V. & SERICITIC LAPILLI TUFF
9107	0.120	>1000	MINE DUMP	QTZ VEIN CUTTING SERICITE SCHIST,PY.
9108	-	383	MINE DUMP	FELSIC VOLCANIC ,HEAVY PYRITE MINER.
9109	-	62	MINE DUMP	Q.V. MASSIVE,WHITE,MINOR CHLORITE
9110	-	10	MINDEL CORE	WEST DRILL HOLE:FELS.VOLC.,PYRITE
9111	1.78	>1000	MILL SLOPE	SULPHIDE MUD
9112	1.04	>1000	MILL SLOPE	SULPHIDE MUD FROM MILL
9113	-	90	VIGOR CLAIM	SER.FEL.VOLC. TOP OF RIDGE N END VIGOR
9114	-	6	VIGOR CLAIM	INTERM.LAPILLI TUFF,FELDS-PHENOS,CARB.
9115	-	7	VIGOR CLAIM	AS 9114.BUT NO LAPILLI OR PY:OXIDE BNDS.
9116	-	5	VIGOR CLAIM	INTERM.TUFF,MINOR PYRITE
9117	-	<5	VIGOR CLAIM	QTZ-CARB VEIN IN INTERM.VOLC.
9118	-	8	VIGOR CLAIM	CHLORITIC SHEAR WITH CARB VEINS
9119	-	9	VIGOR CLAIM	CHLORITIC TUFF,CARB.VEINS MINOR PYRITE
9120	-	7	700E 100N	LOST DESCRIPTION
9121	-	22	??	QTZ-SERICITE TUFF,OXIDIZED BNDS,CHL.
9122	-	10	400W 100N	LAPILLI TUFF,PY,QTZ EYES
9123	-	24	175W 475S	F.G.SERICITIC FELSIC TUFF <1% PYRITE
9124	-	15	810E 215S	INTERM-FELSIC TUFF,PY,CARBONATE
9125	-	20	920E 775S	FELSIC TUFF,SERICITIZED,OXIDIZED
9126	-	<5	900E 750S	INTER-FELSIC TUFF,CHL,CARB,<1% PYRITE
9127	-	21	1000E 650S	FELSIC TUFF,CARB.ALONG FOL.PLANES,SER+CH

9128	-	39	1000E 725S	FELSIC TUFF,OXIDIZED,<1% PYRITE
9129	-	40	1500E 675S	FELSIC TUFF,OXIDIZED,QTZ.STRINGERS
9130	-	<5	1400E 285N	INTERM-FELSIC TUFF,1-2% PYRITE
9131	-	8	1500E 250N	INTER-FELSIC TUFF,<1% PYRITE
9132	-	22	1700E 285N	INTERM TUFF ,CARBONATE,<1% PYRITE
9133	-	5	1700E 375N	INTERM.TUFF,CARB,2%PY,WEAK FOLIATION
9134	-	23	1700E 425N	INTERM TUFF,CHL,CARB,EPI,10%PYRITE
9135	-	31	660W 040N	FELSIC TUFF <1% PYRITE
9136	-	36	750W BL	FELSIC TUFF 3% PYRITE
9137	-	29	TR-1 800W 170N	F.G.FELSIC TUFF,QTZ,SERICITE
9138	-	<5	TR-1 800W 170N	FELSIC TUFF,OXIDIZED,QTZ,SERICITE
9139	-	49	TR-1 800W 170N	INTERM TUFF 2-5% PYRITE
9140	-	9	TR-2 820W 170N	FEL-INTER TUFF,CARB,1-2% PYRITE
9141	-	26	TR-3 840W 150N	FELSIC TUFF CHLORITIC
9142	-	140	TR-5 850W 150N	NO DESCRIPTION ON TAG
9143	-	6	TR-4 850W 130N	FELSIC TUFF,SERICITIC
9144	-	10	TR-4 850W 130N	F.G. INTERM.TUFF,CHLORITE
9145	-	96	TR-5 850W 150N	LAPILLI TUFF 5% PYRITE
9146	-	110	TR-5 850W 150N	INTERMEDIATE TUFF,HIGHLY FOLIATED
9147	-	71	TR-6 875W 160N	INTERMEDIATE TUFF 1% PYRITE
9148	-	220	MINDEL DDH#1	INTERM-FELSIC TUFF 5% PYRITE
9149	-	210	MINDEL DDH#1	FELSIC TUFF,SERICITIC,2% PYRITE
9150	-	47	MINDEL DDH#1	FELSIC XTAL TUFF,1% PYRITE
9151	-	<5	trench ?	SERICITE SCHIST <=10% PYRITE
9152	-	18	MINDEL DDH#2	F.G.INTERM.VOLC.,CARB,10% PYRITE
9153	-	38	MINDEL DDH#2	F.G.INTERM.TUFF,SERICITE,2% PYRITE
9154	-	18	MINDEL DDH#2	INTERM.TUFF,3-5% PYRITE
9155	-	130	TR-7 930W 165N	INTERM.TUFF,SERICITE,5% PYRITE
9156	-	170	TR-7 930W 165N	F.G. INTERM.TUFF,SERICITE,3% PYRITE
9157	-	11	TR-7 930W 165N	INTERM.TUFF,OXIDIZED,2% PYRITE
9158	0.054	>1000	935W 185N	SERICITIC TUFF,OXIDIZED,SHEARED,3% PY
9159	0.055	>1000	975W 235N	F.G.INTERM.TUFF 2% PYRITE
9160	-	170	945W 325N	FELSIC TUFF <1% PYRITE
9161	-	60	1000W 175N	FELSIC TUFF <1% PYRITE
9162	-	39	1070W 060N	F.G.QTZ-FELSIC-TUFF,2%PY,CARBONATE
9163	-	42	PM-44	F.G. XTAL TUFF <1% PYRITE
9164	-	60	MINDEL DDH#3	INTERM-FELSIC TUFF,HIGHLY SERICITIZED
9165	-	8	1250W 330N	INTERM.TUFF,CHLORITIC,5% PYRITE
9166	-	81	PM-49	FELSIC TUFF ,SERICITE,20% PYRITE
9167	0.06	>1000	PM-50	QTZ VEIN:VUGGY,MASSIVE PYRITE
9168	-	157	PM-51	INTERM.TUFF,PY,SERICITE
9169	-	240	PM-52	FEL-INTERM TUFF,MASSIVE SULPHIDES-35%
9170	-	46	1150W 280N	XTAL TUFF <1% PYRITE
9171	-	24	1150W 320N	FELSIC TUFF
9172	-	6	600E 1150S	F.G.INTERMEDIATE TUFF
9173	-	9	300E 025S	MAFIC FLOW,AMYGMALOIDAL,FE STAIN
9174	-	15	200E 410S	MAFIC VOLC,CHLORITIZED,EPIDOTE.
9175	-	17	100E 225S	?????
9176	-	6	RC-14	V.F.G.INTER-MAFIC VOLC,PY AND LIMONITE
9177	-	22	475W 360S	ASH-LAPILLI TUFF(POSS ARKOSIC SED)
9178	-	37	RC-16	FELDSPAR PORPHYRY,PY.
9179	-	24	RC-17	V.F.G. HEM-MAG.RICH SILICEOUS SEDIMENT

9180	-	<5	1500W 150N	BNDED FEL.TUFF,SERICITE,QTZ.EYES
9181	-	<5	1550W 385N	CHERT ? CARB.CHLORITIC,SERICITIC
9182	-	<5	1600W 150N	FELSIC TUFF,CARBONATE,SERICITE
9183	-	7	PM-57	INTERM.TUFF,PYRITE
9184	-	15	2300W 435N	FELSIC-INTERM.TUFF,CHLORITIC,1-2% PY
9185	-	<5	3200E 1500S	V.F.G.SED,F.G.PY,CONCOIDAL FRACTURE
9186	-	<5	3180E 775S	MAFIC VOLC,<1% PYRITE
9187	TR	-	2280W 1050S	MASSIVE F.G.MAFIC VOLC.1-2%PYRITE
9188	TR	-	3000E 825N	INTERM-MAFIC VOLC.<1%PY,CARB,EPIDOTE
9189	TR	-	3100E 950N	COARSE FRAGMENTAL VOLC,<1%PY,EPI-CHL
9190	0.005	-	2400E 325S	FELSIC TUFF,SERICITE,CHL,CARB,1% PY
9191	TR	-	2250E 1425S	V.F.G.INTERM.VOLC.TUFFACEOUS,CARB,2%PY
9192	TR	-	2300E 235S	FELSIC TUFF,SERICITE,HEMATITE,2% PY
9193	TR	-	2230E 435S	FELSIC TUFF,HEMATITE,QTZ.VEINLETS,1-2%PY
9194	0.005	-	2000E 1475S	F.G.INTERM.TUFF,CARBONATIZED,5% PYRITE
9195	TR	-	1900E 500S	FELSIC TUFF,CHLORITIC,HEM,1-2% PYRITE
9196	0.005	-	1700W 1175S	MASSIVE F.G.FELSIC TUFF,SER,1-2%PYRITE
9197	TR	-	1800W 1000S	QTZ.VEIN,MILKY WHITE,OXIDIZED
9198	0.005	-	1840W 1000S	FELSIC TUFF,<2%PY,CARBONATE(AGGLOMER ?)
9199	0.005	-	1750W 1150S	F.G. INTERM-FELSIC TUFF,1-2% PYRITE
9200	TR	-	2600E 625N	F.G.INTERM-MAFIC TUFF,EPIDOTE,1-2% PY

10308	TR	58	147.0-153.0
10309	TR	41	153.0-156.5
10310	TR	53	156.5-158.5
10311	TR	140	158.5-163.0
10312	TR	538	163.0-163.8
10313	TR	40	163.8-164.5
10314	TR	28	164.5-167.0
10315	TR	70	137.5-141.0
10316	TR	51	118.0-122.0
10317	TR	80	130.5-135.0
10318	TR	48	135.0-137.5
10319	TR	252	8.0- 12.0
10320	TR	49	26.0- 29.5
10321	TR	130	33.0- 38.0
10322	TR	47	48.0- 50.0
10323	TR	37	58.0- 61.0
10324	TR	20	65.0- 67.0
10325	TR	34	80.0- 83.0
10326	TR	57	84.0- 86.0
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10327	TR	40	3.0- 8.0
10328	TR	44	8.0- 12.0
10329	0.32	33	12.0- 17.0
10330	TR	58	17.0- 22.0
10331	TR	23	22.0- 28.5
10332	TR	24	28.5- 33.0
10333	TR	20	33.0- 38.0
10334	TR	27	38.0- 43.0
10335	TR	63	43.0- 48.0
10336	TR	72	48.0- 53.0
10337	TR	40	53.0- 58.0
10338	TR	34	58.0- 60.5
10339	TR	48	60.5- 65.0
10340	TR	46	65.0- 70.0
10341	TR	10	70.0- 75.0
10342	TR	<5	75.0- 80.0
10343	TR	120	80.0- 85.0
10344	TR	23	85.0- 90.0
10345	TR	7	90.0- 95.0
10346	TR	10	95.0- 100.0
10347	TR	50	100.0- 105.0
10348	0.02	848	105.0- 110.0
10349	0.01	154	110.0- 117.0
10350	TR	13	117.0- 122.0
10351	TR	<5	122.0- 127.0
10352	0.01	<5	127.0- 132.0
10353	TR	<5	132.0- 137.0

10354	TR	<5	137.0- 142.0
10355	TR	<5	142.0- 147.0
10356	TR	<5	147.0- 152.0
10357	TR	<5	152.0- 157.0
10358	TR	<5	157.0- 162.0
10359	TR	<5	162.0- 167.0
10360	TR	30	167.0- 172.0
10361	TR	27	172.0- 177.0
10362	TR	<5	177.0- 182.0
10363	TR	5	182.0- 187.0
10364	TR	86	187.0- 192.0
10365	TR	<5	192.0- 197.0
10366	TR	426	197.0- 205.0
10367	TR	75	205.0- 210.0
10368	TR	60	210.0- 216.0
10369	TR	<5	244.0- 247.0
10370	TR	27	247.0- 250.0
10371	TR	30	262.0- 266.0
10372	TR	60	275.0- 277.0
10373	TR	27	304.0- 308.0
10374	TR	68	309.0- 311.0

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10375	TR	38	7.0- 13.0
10376	TR	66	42.6- 45.5
10377	TR	52	49.0- 51.0
10378	TR	86	69.0- 72.0
10379	TR	13	78.5- 79.5
10380	0.02	170	119.8- 123.0
10381	TR	41	123.0- 126.5
10382	TR	53	129.0- 132.5
10383	TR	65	157.0- 162.0
10384	TR	24	132.5- 135.0
10385	TR	71	162.0- 165.0
10386	0.01	52	165.0- 170.0
10387	TR	29	170.0- 176.0
10388	TR	55	185.0- 187.0
10389	TR	33	215.0- 221.0
10390	TR	17	246.5- 251.0
10391	TR	20	251.0- 257.0

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10392	TR	41
10393	TR	20
10394	TR	24
10395	TR	41
10396	TR	29
10397	TR	44
10398	TR	76
10399	TR	27

10400	TR	10			REMAINDER OF SL-83-5 AT TAG# 10745
10401	TR	-	TR-4 400W	4+06S	INTERM.VOLC.VERY FOLIATED-SER,HEM,Q-C
10402	TR	-		07S	AS IN 06S
10403	TR	-		08S	AS IN 06S
10404	TR	-		09S	AS IN 06S
10405	TR	-		10S	INTERM.VOLC.LESS FOLIATED,HEM,1% F.G.PY
10406	TR	-		11S	INTERM.VOLC.INTERB.Q-C BNDS,HEM.STAIN
10407	TR	-		12S	FELSIC VOLC.Q-C BNDS,MUCH SER,HEM.STAIN
10408	TR	-		13S	FELSIC VOLC.,SER,INTERC.Q-CBNDS,HEM.
10409	TR	-	TR-3 500W	4+17S	FELSIC VOLC,SER,Q-C VEINLETS,HEMATITE
10410	TR	-		18S	INTERM.VOLC.5cm Q-C VEIN,MUCH HEMATITE
10411	TR	-		19S	INTERMEDIATE-MAFIC VOLCANIC
10412	TR	-		20S	INTER-FELSIC VOLC.Q-C,HEM.SPOTS,POOR FOL
10413	TR	-		21S	AS IN 20S
10414	TR	-		22S	INTERM-FELSIC VOLC,2cm,Q-C-HEM VEIN
10415	TR	-		23S	INTERM-FELSIC VOLC.ABUNDANT HEMATITE
10416	TR	-		24S	INTERM-MAFIC VOLC..5cm Q-C-HEM BNDS
10417	TR	-		25.5S	4" Q-C-HEM VEIN,SCHISTOSE CONTACTS
10418	TR	-		23.5S	8"Q-C VEIN,1% F.G. PYRITE
10419	TR	-		25S	VOLC.SEDS,WELL BEDDED,SI02,MIN CARB-HEM
10420	TR	-		26S	VOLC.SEDS,WELL BEDDED,SER-HEM ON BED.
10421	TR	-		27S	INTERM.VOLC.,HEAVY HEMATITE STAIN
10422	TR	-		28S	INTERM.VOLC,INTERC.Q-C BNDS,HEMATITE
10423	TR	-		29S	INTERM.VOLC.INTERCALATED Q-C BNDS
10424	TR	-		30S	AS IN 29S
10425	TR	-		31S	INTERM.VOLC.HEM,CARB STRINGERS
10426	TR	-		32S	INTERM.VOLC.HEM ON FOLIATION & SPOTS
10427	TR	-		33S	INTER-MAF.VOLC.Q-C BNDS,F.G. PYRITE
10428	TR	-		34S	AS IN 33S
10429	TR	-		35S	AS IN 33S
10430	TR	-		36S	INTER-MAFIC VOLC,Q-C STRIN.PAR.FOLIATION
10431	TR	-		37S	INTERM.VOLC.Q-C,HEMATITE
10432	TR	-		38S	AS IN 37S
10433	TR	-		39S	INTER-MAFIC VOLC.WEAK FOLIATION
10434	TR	-		40S	AS IN 39 WITH Q-C STRINGERS
10435	TR	-	TR-2 600W	5+08S	FELSIC VOLC.SER-HEM,30cm BND OF MAF.VOLC
10436	TR	-		09S	FELSIC VOLC.,SER,HEM,CARB,WELL FOLIATED
10437	TR	-		10S	AS IN 09S
10438	TR	-		11S	AS IN 09S
10440	TR	-		12S	FELSIC VOLC.,ALTERED,HEM,CARB.STRINGERS
10441	TR	-		13S	MAFIC VOLC. 3-4mm CARB.STRINGERS
10442	TR	-		17S	MAFIC VOLC.,QTZ-CARB SPOTS,>1%PYRITE
10443	TR	-		18S	AS IN 17S
10444	TR	-		22S	MAFIC & FELSIC VOLC,SER,HEM
10445	TR	-		23S	VOLC.SEDS.,CHERT,BEIGE-PINK
10446	TR	-		24S	VOLC.SEDS, CHERT
10447	TR	-		25S	VOLC.SEDS. CHERT,BEDDED
10448	TR	-		26S	VOLC.SEDS.ABUNDANT CHERT
10449	TR	-		27S	VOLC.SEDS. CHERT,BEDDED,BEIGE-PINK

10450	0.01	-	28S	AS IN 27S
10451	TR	-	29S	AS IN 27S
10452	TR	-	30S	AS IN 27S
10453	TR	-	31S	AS IN 27S
10454	TR	-	32S	AS IN 27S
10455	TR	-	33S	CARBONATE:MASSIVE,WHITE-BEIGE-PINK,Q.V.
10456	TR	-	34S	AS IN 33S
10457	TR	-	35S	AS IN 33S:HEMATITE STAINED
10458	TR	-	36S	AS IN 33S
10459	TR	-	37S	AS IN 33S

10469	TR	-	WEST TRENCH	MAFIC VOLCANIC
10470	TR	-	WEST TRENCH	MAFIC VOLCANIC
10471	TR	-	WEST TRENCH	INTERM-MAFIC VOLCANIC,2% PYRITE
10472	TR	-	WEST TRENCH	AS 10471
10473	TR	-	WEST TRENCH	AS 10471
10474	TR	-	WEST TRENCH	AS 10471
10475	TR	-	WEST TRENCH	RAPIKIWI WITH 1% PYRITE
10476	TR	-	WEST TRENCH	RAPIKIWI/MAFIC VOLC.CONTACT ZONE
10477	TR	-	WEST TRENCH	AS 10476
10478	TR	-	WEST TRENCH	MAFIC VOLCANIC,PYRITE
10479	TR	-	WEST TRENCH	MAFIC VOLC./RAPIKIWI CONTACT
10480	TR	-	WEST TRENCH	INTERM.VOLC.,F.G.SILICEOUS,2% PY,CARB.

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10701	0.01	357	8.0- 13.0
10702	TR	86	13.0- 18.0
10703	TR	140	18.0- 23.0
10704	TR	26	23.0- 28.0
10705	TR	13	28.0- 33.0
10706	TR	16	33.0- 38.0
10707	TR	150	38.0- 43.0
10708	TR	N.S.	43.0- 48.0
10709	TR	20	48.0- 52.5
10710	TR	17	53.0- 55.0
10711	TR	12	61.5- 62.5
10712	TR	10	61.0- 68.5
10713	TR	13	84.0- 86.0
10714	TR	6	102.0-107.0
10715	TR	<5	107.0-113.0
10716	TR	6	113.0-118.0
10717	TR	12	118.0-124.0
10718	TR	6	132.0-134.0
10719	TR	8	138.0-143.0
10720	TR	13	143.0-148.0
10721	TR	16	148.0-152.0
10722	TR	20	159.0-164.0
10723	TR	21	164.0-169.0
10724	TR	<5	169.0-174.0
10725	TR	23	174.0-179.0
10726	TR	60	197.0-199.5

10727	TR	20	210.0-213.0
10728	TR	23	216.5-217.5
10729	TR	6	228.0-229.0
10730	TR	13	233.5-238.5
10731	TR	17	241.5-246.0
10732	TR	17	246.0-251.5
10733	TR	15	251.5-256.0
10734	TR	23	256.0-261.0
10735	TR	<5	261.0-266.0
10736	TR	<5	266.0-271.0
10737	TR	56	271.0-276.0
10738	TR	23	276.0-281.0
10739	TR	50	281.0-286.0
10740	TR	20	286.0-291.0
10741	TR	27	291.0-296.0
10742	TR	322	296.0-301.0
10743	TR	157	301.0-306.0
10744	TR	33	306.0-311.0
NOTAG	TR	26	

SL-83-5
(cont.from tag# 10400)

10745	TR	6	70.0- 75.0
10746	TR	23	75.0- 80.0
10747	TR	21	80.0- 85.0
10748	TR	23	85.0- 90.0
10749	TR	<5	90.0- 93.0
10750	TR	<6	96.0- 97.0
10751	TR	10	100.0-104.5
10752	TR	10	115.5-116.5
10753	TR	140	133.0-134.0
10754	TR	<5	138.0-140.0
10755	TR	<5	154.0-159.0
10756	TR	<5	159.0-164.0
10757	TR	9	164.0-169.0
10758	TR	<5	169.0-174.0
10759	TR	<5	174.0-179.0
10760	TR	<5	179.0-182.0
10761	TR	<5	206.0-212.0
10762	TR	50	218.0-218.5
10763	TR	31	220.0-225.0
10764	TR	10	229.0-234.0
10765	TR	13	234.0-239.0
10766	TR	30	239.0-244.0
10767	TR	<5	244.0-249.0
10768	TR	13	249.0-254.0
10769	TR	15	254.0-259.0
10770	TR	10	259.0-264.0
10771	TR	7	264.0-269.0
10772	TR	26	269.0-274.0
10773	0.01	804	274.0-279.0

10774	TR	26	279.0-284.0	
10775	TR	33	284.0-289.0	
10776	TR	38	289.0-294.0	
10777	TR	48	294.0-299.0	
10778	TR	20	299.0-302.0	
10779	TR	13	302.0-307.0	
10780	TR	20	307.0-312.0	
10781	TR	17	312.0-316.0	
10782	TR	31	316.0-321.0	
10783	TR	20	321.0-326.0	
10784	TR	17	326.0-331.0	
10785	TR	10	331.0-336.0	
10786	TR	13	336.0-341.0	
10787	0.02	<5	341.0-346.0	
10788	0.01	7	346.0-350.0	
10789	TR	12	350.0-354.0	
10790	0.01	145	354.0-359.0	
10791	TR	57	359.0-364.0	
10792	TR	<5	364.0-369.0	
10793	TR	<5	369.0-374.0	
10794	TR	<5	374.0-379.0	
10795	TR	<5	379.0-384.0	
10796	TR	<5	384.0-389.0	
10797	TR	<5	384.0-389.0	

	TR	-	TR-7 500W 0+20N	INTERM.TUFF,F.G.PY BNDS,CHL,QTZ STRINGS
	TR	-	21N	AS IN 20N
	TR	-	22N	AS IN 20N
	TR	-	23N	AS IN 20N
	TR	-	24N	F.G.INTERM.TUFF,F.G.PY,QTZ.STRINGERS
	TR	-	25N	AS IN 24N:>2% PYRITE
	TR	-	26N	INTERM.TUFF,PY,SER,CHL,QTZ.STRINGERS
	TR	-	27N	AS IN 26N
	TR	-	28N	AS IN 26N
	TR	-	29N	AS IN 28N: <=7% PYRITE
	TR	-	30N	AS IN 29N
	TR	-	31N	ALTERED TUFF AS IN 30N,5% PYRITE
	TR	-	32N	MAFIC VOLCANIC,1% PYRITE
	TR	-	33N	AS IN 32N:WITH C.G.CALCITE VEINLETS
	TR	-	34N	AS IN 33N
	TR	-	35N	INTERM.TUFF,ALTERED,SERICITIZED,MIN PY
	TR	-	36N	AS IN 35N
	TR	-	37N	AS IN 35N:WITH STRINGERS OF PYRITE (4%)

PR-1	.001	SULPHIDE SHOWING ON ROAD
PR-2	.001	FLOAT:E OF ROAD TOP OF RIDGE

SPARTON RESOURCES INC.

STRAW LAKE PROJECT

SECTION 3

PROSPECTING SURVEY

1983 EXPLORATION PROGRAM

INTRODUCTION

This section summarizes the activities of J.Scouten and crew in the Mister Lake Area of the Straw Lake Property of Sparton Resources Inc. for the 1983 season.

J.Scouten,D.Scouten,S.Johnson,and R.Nixon were contracted,in the capacity of independant contractor,to prospect in this area according to the terms and conditions of a letter agreement signed by J.Scouten and P.Matthews in May, 1983

FIELD METHODS

Traverses were generally run north-south to cross the stratigraphy, which trends at 060 t0 090 throughout the prospected area.

The start of each traverse is flagged in the field and every 50 m along the traverse route.Sample locations are also flagged in the field.Crews of two prospected intensively along the traverse routes,with the attempt being made to cover as much area as possable on either side of the line.Moss and overburden were frequently stripped to expose previously unexamined bedrock.

Samples were taken wherever sulphide mineralization,carbonate alteration significant quartz veining or heavy rusty weathering was encountered.Most samples taken were chip samples,usually over a one square metre area.Many grab or chip samples were also taken.No soil samples were taken.

Encouraging samples,especially those near the periphery of the claim group,were crushed,roasted,and panned to gain an indication of the need for follow-up work or further staking.

It was attempted to give uniform coverage to the area,with traverse lines no further apart than 200m.More detailed coverage was given to certain ares.

Access was gained to the various work area either by foot from Mister Lake,or from the many other small lakes accessible by canoe with short portages.

SAMPLE DIARY/MAPS

All traverses and rock sample locations are plotted on the following maps at 1:10000.The following sample diary includes the sample number,gold values in ppb,sample location,and a description of the rock sample.

SPARTON RESOURCES INC.

STRAW LAKE
SAMPLE DIARY
MISTER LAKE PROSPECTING
1983

TAG #	AU oz/t	AU ppb	LOCATION	DESCRIPTION
9201JS		11	TRAV.35 50m	SHEARED FEL. VOLC,CHERT LENSES,PY,MAG.
9202JS		12	36 290m	INTERM.TUFF,FELSIC LENSES,MASS,F.G.,PY
9203JS		12	36 350m	INT-FEL VOLC.,GOSSAN,1%PYRITE
9204JS		13	36 390m	FELSIC VOL.MASSIVE,F.G.,PYRITE
9205JS		17	37 225m	APHANITIC,MASSIVE,INT.VOLC.PYRITE
9206JS		12	37 230m	APHAN,F.G.INTERM.VOLC.GOSSAN BNDS,PY
9207JS		19	37 320m	SHEARED F.G.INTERM VOLC.GOSSAN,2%PY
9208JS		21	37 830m	F.G.-M.G.INTERM VOLC,F.G.PYRITE
9209JS		16	37 830m	M.G.MASSIVE,INT-FELSIC VOLC.PYRITE
9210JS		11	37 960m	QUARTZ VEIN(1m)IN INTERM VOLC,MASSIVE
9211JS		16	38 941m	MAFIC FELDS.PORPH.PYRITE
9212JS		17	40 190m	F.G. FELSIC VOLC.BNDS OF WHITE RHY.
9213JS		14	40 250m	F.G. FELSIC VOLC,SHEARED,GOSSAN,PY
9214JS		17	40 260m	SERICITE SCHIST,PYRITE,OLD TRENCH
9215JS		19	41 260m	F.G.SHEARED FEL.VOLC.RUSTY,PYRITE
9216JS		19	18A 80m	QUARTZ FLOAT,ROUNDED,1m LONG
9217JS		15	18A 295m	GREY.F.G.APHAN.FELS.VOLC.10%PY,FLOAT
9218JS		11	SHORELINE	SHEARED FELSIC VOLC.SER,HEM,TR. OF PY
9219JS		13	13A 175m	MASSIVE MAFIC VOLC,CARB.FRACTURES
9220JS		19	SHORELINE	FLOAT-ANGULAR,MAGNETITE AND PYRITE
9221JS		18	SHORELINE	INTENSLY SHEARED FEL.VOLC.1%PY,Q.V.
9222JS		9	SHORELINE	FLOAT-QTZ,SUBANGULAR,PYRITE
9223JS		9	SHORELINE	FLOAT-QTZ-CARB,PYRITE
9224JS		<5	SHORELINE	SILICEOUS,FELSIC TUFF,LIMONITE,SER.
9225JS		13	SHORELINE	AS 9223 PLUS SIDERITE ?
9226JS		13	28 200m	QUARTZ 'SWEAT',IN MASS.APH.FEL.VOLC.
9227JS		10	29 1030m	MASS.F.G.FEL.VOLC,QTZ VEINLETS,PY
9228JS		74	29 1050m	FELSIC VOLC,SILICIFIED + PROPYLTIZED
9229JS		29	42 260m	FLOAT-V.F.G.FEL.VOLC,PLATY,PY,
9230JS		9	42 300m	FELSIC VOLC,MOD.SHEARED,LIMONITE,PY
9231JS		12	SHORELINE	FELSIC VOLC?,GREEN/GREY,RUSTY
9232JS		17	SHORELINE	FLOAT-APHANITIC,,BROWN,POSS.TOURMALINE
9233JS		11	SHORELINE	RHYOLITE,PINK/BROWN,PY,MAG,WEAK FOL.
9234JS		8	SHORELINE	FLOAT-FELSIC VOLC?,<10%PY-CPY,MAL
9235JS		44	SHORELINE	FLOAT-SUBANGULAR,MINOR CARBONATE

9236JS		10		36A	230m	FELSIC,GREY/GREEN,>1%PY,
9237JS		9		36A	395m	FELSIC VOLC,APHAN.1%PY,GOSSAN
9238JS		15		36A	500m	FELSIC VOLC LAPILLI IN INT.VOLC MAT.
9239JS		54		36A	MAP	INTERM.VOLC ?,CARBONATIZED
9240JS		8		36A	MAP	INTERM.VOLC.GOSSAN VENEER
9241JS		12		36A	MAP	FELSIC VOLC,APHAN,1%PY
9242JS		11		31A	100m	FELSIC VOLC,PINK,<1%PY or MAG:Q.V.
9243JS		13		31A	180m	AS 9242
9244JS		11		43	0m	F.G.-M.G.INTERM VOLC.1%PY,RUSTY
9245JS		8		43	160m	MAFIC VOLC.CHLORITIC,F.G.PYRITE
9246JS		12		44	300m	FEL-INTERM.VOLC.RE/BROWN Q.VEINLETS
9247JS		10		44	340m	FELSIC VOLC.PINK,ADJ TO MAFIC FLOW
9248JS		11		44	400m	FLOAT-FELSIC,HEM-LIMONITE STAINED
9249JS		13		18A	38m	F.G.INTERM.VOLC,BLACK,RUSTY ZONES
9250JS		9		18A	78m	INTERM.VOLC,MOD.SHEARED,MIN.PYRITE
9251JS		15		36	665m	INTERM.VOLC.MASSIVE,VEINLETS OF PY-CAR
9252JS		12		36	780m	INTERM.VOLC,MUCH PY,
9253JS		18		37	190m	INTERM.VOLC.MASSIVE,MIN.F.G.PYRITE
9254JS		13		37	965m	Q.V IN INTERM.VOLC,STOCKWORK
9255JS		15		37	1150m	FEL-INTERM.VOLC,M.G.,DISS PYRITE
9256JS		15		38	325m	FELSIC VOLC.SHEARED,PYRITE
9257JS		18		38	620m	INTERM VOLC,SHEARED,F.G.,PYRITE
9258JS		17		38	775m	INTERM.VOLC,MASSIVE,PYRITE
9259JS		11		40	380m	TRENCH POP:7'Q.V.,FEL.HOST,SER,PY
9260JS		13		40	25m	INTERM.VOLC.MOD.SHEARED,PYRITE ZONES
9261JS	0.056	>1000		32A	280m	Q.VEINS IN INTERM.VOLC.INTEN.SHEARING
9262JS		33		32A	285m	TRENCH-Q.V IN FEL.VOLC,SIDERITE?
9263JS		38		SHORELINE		FELSIC VOLC,APHAN,PINK,<1%PY,RUSTY
9264JS		8		SHORELINE		FELSIC VOLC,FISSILE,SER-HEM.
9265JS		11		18A	120m	Q.V.(.5m),SHEARED INTERM.VOLC.
9266JS		9		8B	45m	FEL.VOLC,SHEARED,GOSSANOUS,3%PY
9267JS		8		6A	60m	TRENCH-QTZ-CARB.VEINS IN #9269
9269JS		11		6A	60m	FELSIC VOLC.PINK/GREEN,SER,
9271JS		5		6A	60m	TRENCH- 20m W OF 9267,MINOR QTZ.
9273JS		7		6A	60m	TRENCH- 30m W OF 9267QTZ & WALL RX
9501JS		11		1	40m	INTERM.VOLC,APHAN,MASSIVE,MIN SER
9502		10		1	450m	INTERM.VOLC,APHAN,SHEARED,SER,Q.STOCK
9503		17		1	600m	M.G-C.G.FRAGS IN MAFIC VOLC.
9504		12		1	660m	PORHYRITIC GABBRO,50% PHENOS
9505		12		1	780m	F.G.INTERM.VOLC,MIN.SER,2%MAG,Q.V.
9506		13		2		F.G.INT.TUFF,X-BED:GRADED,Q-C VEINS
9507		5		2		M.G.FELSIC VOLC,SERICITE,Q.V.PYRITE
9508		<5				F-M.G.INTERM.VOLC,SER-CARB,QV.+ PY
9509		5				M.G.FELSIC VOLC,FRAG OF FLOW RHY,SER
9510		12				AS 9509,SER-CARB,Q.V.STOCKWORK,PY
9511		12				FEL.VOLC.HORNFELSIC JOINTS,APH,C.G.PY
9512		7		3	155m	INTER.VOLC,MINER SHEARING
9513		7		3	355m	FLOAT- QUARTZ
9514		8		3	800m	FEL.VOLC,HIGH SHEAR(QFP ?),SER,Q.STOCK
9515		9		3		M.G-C.G.FEL.VOLC,CHL/SER,PYRITE
9516		<5		3	988m	INTERM.VOLC,F.G.,MINOR SER,PYRITE
9517		54		3	1010m	FLOAT-QUARTZ

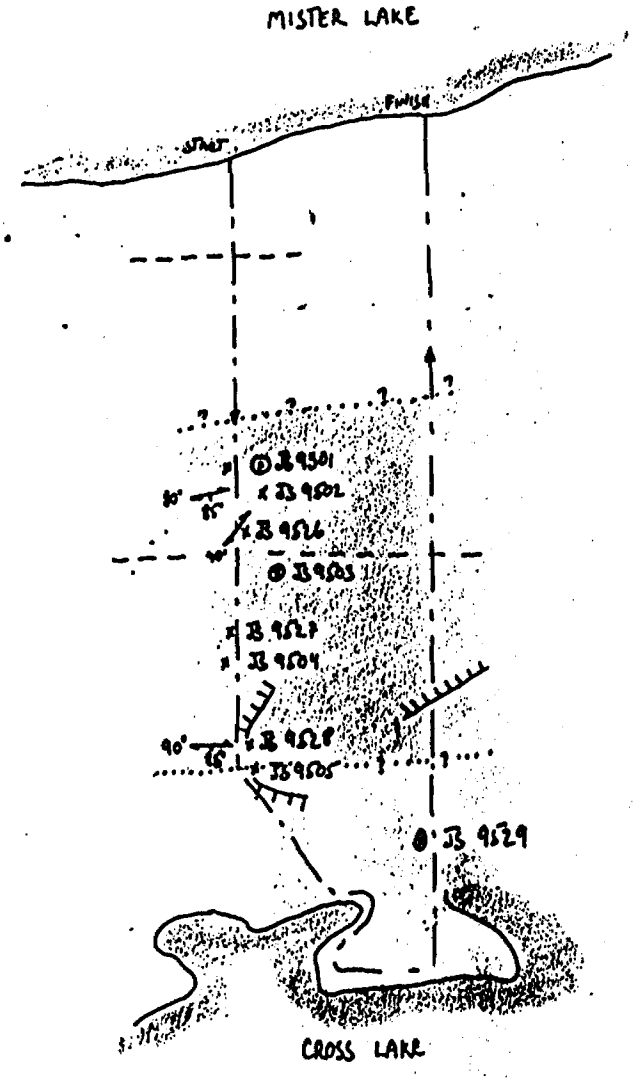
9518	10	3	1110m	ARKOSIC SED,(FEL.TUFF ?),PY-CPY
9519	9	6	1150m	INT.TUFF,F.G.,20cm Q.V.,BRECCIATED
9520	10	9	202m	INT.VOLC.F.G.-M.G.,18cm Q.V.
9521	20	9	625m	INT.VOLC.F.G-C.G.,QTZ-ANK VEINS
9522	22	9	840m	FELSIC VOLC,F.G-M.G.,SER,QTZ-ANK,PY
9523	5	11	2m	FELSIC VOLC.F.G.,SERICITE,PYRITE
9524	20	11	1590m	FELSIC VOLC,F.G.WEAK SHER.,SER-QTZ
9525	9	11	1600m	INT.VOLC.,F.G.,SHEARED,QTZ-PY
9526	8	1	500m	MAFIC/FELSIC CONTACT,PLATY/PHYLITTIC
9527	16	1	630	INT.VOLC ?,CARB,
9528	14	1	770m	INT.VOLC,QTZ-ANK.VEINS,PYRITE
9529	31	1	1100m	FLOAT
9530	9	3	220m	FELSIC VOLC,GREY,CLOSE TO GABBRO CONT.
9531	10	3	385m	FELSIC TUFF,INTENSLY SHEAR,STRET.FRAGS
9532	5	3	840m	FELSIC VOLC,SILICEOUS,PYRITE
9533	8	MISTER L.		FLOAT-QUARTZ
9534	14	MISTER L.		FEL.VOLC,SHEARED,Q.V.PARALLELL FOLIAT.
9535	13	MISTER L.		FLOAT-QUARTZ
9536	17	MISTER L.		FELSIC VOLC.GREY/BLACK,RANDOM Q.V.
9537	16	MISTER L.		FEL.VOLC,APHAN,GREEN,F.G.PY IN BNDS
9538	5	MISTER L.		FEL.VOLC,APHAN,CHERTY FRAGS,PYRITE
9539	7	4	775m	SILICIFIED SHEAR ZONE,FELSIC VOLC,
9540	14	4	915m	'MARBLED'BROWN/GREY MASS.FEL.VOLC,PY
9541	10	4	2575m	FEL.VOLC,SHEARED,LARGE-SMALL FRAG
9542	8	7	300m	F.G.INTER.VOLC?,30%Q.VEINS,CARB
9543	11	7	1460m	FEL.VOLC,APHAN,GREY/GREEN,Q.V.,HEM.
9544	5	7	1700m	SERICITIZED LIGHT GREEN ROCK,PY
9545	10	8	10m	VERY GOSSANOUS FEL.VOLC.PHYLLITIC
9546	6	8	130m	MAFIC VOLC,MUCH Q.V.,CHL,
9547	8	8	1810m	INTERM.VOLC,SHEARED,HEM STAIN BNDS,PY
9548	<5	11	25m	FELSIC VOLC?,INTENSE.SHEAR.,PINK,<1%PY
9549	5	11	85m	FELSIC VOLC,MOD SHEARED,PINK,2%PY
9550	5	11	750m	FELSIC VOLC.GREY,INTENSE SHEAR,Q.VEINS
9551	71	2	418m	FELSIC VOLC,MASSIVE TO WEAK FOLIATION
9552	8	2	515m	FEL.VOLC,F.G-M.G.,MASS-WEAK FOLIATION
9553	12	2	770m	SERICITIZED ROCK,CRENULATED FOLIATION
9554	32	MISTER L.		INT-FEL VOLC,MASS,F.G,PYRITE
9555	NS	MISTER L.		FELSIC VOLC,WITH CHERT FRAGS,<1%PY
9556	15	5	300m	FELSIC VOLC,MIN Q.V.,
9557	12	5	575	Q.VEINING IN WEAK.FOL. BUFF COLOR ROCK
9558	<5	5	750m	INTERM.VOLC.F.G.,WEAK FOL.,QTZ.FRAGS
9559	7	5	1550m	INTER.VOLC,F.G.,WEAK FOL,PYRITE
9560	17	5	1828m	FLOAT-FELSIC VOLCANIC
9561	11	8	135m	Q.V.<=1m,INTERM.VOLC,CARB,QTZ STRINGS.
9562	8	8	1155m	SILICEOUS F.G.PLATY ROCK
9563	15	8	1820m	SERICITIZED,SHEARED,F.G.ROCK,PYRITE
9564	9	10	880m	INTERM.VOLC,F.G.,MASSIVE,PYRITE
9565	9	12	250m	PLATY,GOSSANOUS FELSIC VOLC?,PYRITE
9566	11	12	525m	FLOAT-LOCAL,QUARTZ
9567	12	12	1615m	INTER.APHAN.VOLC,MUCH SERICITE,PYRITE
9568	11	12	1750m	SERICITIZED SHEARED ,PYRITIC
9569	11	14	1255m	PHYLLITIC ROCK,SERICITE,QTZ.FRAGS

9570	13	14	1500m	INTERM.VOLC,F.G.,Q.VEINS,MAF FRAGS,PY
9571	16	14	1535m	GOSSANOUS ALTERED ROCK,AUGEN QTZ,PY
9572	<5	16	165m	INT-FELSIC VOLC.SER,QTZ.FRAGS,
9573	<5	16	2050m	FELSIC VOLC,SILICEOUS,SER,MUCH QTZ.PY
9574	<5	18	130m	FEL.VOLC,MASS.,GOSSAN,3-4%PY,MASS-DISS
9575	5	18	490m	CHERT,MASSIVE,MUCH PYRITE
9576	8	2	3m	FELSIC TUFF,3%PYRITE,HEMATITE
9577	17	2	118m	FLOAT-SILICEOUS
9578	9	2	162m	FELSIC VOLC.F.G.,3&MAG,PY,Q.V.,FOLDED
9579	8	2	369m	INTERM.VOLC,MASSIVE,QTZ-FELD-MICA,
9580	18	2	323m	FELSIC TUFF,F.G.,3%PY,QTZ FRAGS<10mm
9581	5	2	657m	INTERM.VOLC,GREY/GREEN,HEM,Q.VEINING
9582	6	3	660m	FELSIC VOLC,HIGHLY SHEARED,HEM,FISSILE
9583	10	3	845m	FELSIC VOLC.,F.G.,MINOR PY,FOLIATED
9584	15	LAKESHORE		FELSIC VOLC,F.G,HEM-CARB,Q.VEINING
9585	8	SHORELINE		Q.VEIN(10-15cm)IN FELSIC TUFF
9586	11	SHORELINE		INTERM.VOLC.,LARGE QTZ.FRAGS,STRETCHED
9587	17	5	152m	FELSIC VOLC.,CHERTY,5%PYRITE
9588	17	5	383m	INTERM.VOLC.,QTZ-HEMATITE BANDS
9589	11	5	1100m	FELSIC TUFF,QUARTZ AUGEN,
9590	8	5	1680m	FELSIC TUFF,STRET.FRAGS,QTZ-CARB,PY
9591	9	9	725m	INTERM.VOLC,Q.VEINING,3%PYRITE
9592	16	9	1200m	FELSIC VOLC.MASSIVE,Q-C STRINGS,3%PY
9593	22	10	560m	SILICEOUS VOLC,LIMONITE,1%PY,Q.V+PY
9594	11	10	1350m	FELSIC VOLCANIC ?
9595	10	13	300m	INTERM.VOLC,QTZ-ANK,2%PY
9596	12	13	662m	INTER.VOLC,F.G.WEAK FOL.,<4%PY
9597	7	13	850m	FELSIC VOLC,MASSIVE,LIMONITE,PY
9598	9	15	800m	INTERM.TUFF,QTZ.FRAGS,<2%PY
9599	<5	16	195m	INTERM.TUFF,SER,M.G.,5%PY,
9600	<5	16	1265m	FLOAT-FELSIC VOLCANIC
9601	<5	15	315m	FLOAT-MAFIC VOLC?,F.G.,GOSSAN,PY-CPY
9602	<5	15	860m	FLOAT-QUARTZ
9603	<5	3A	1600m	APHANITIC FELSITE,PYRITE
9604	7	3A	1725m	FELSIC VOLC,SHEARED,F.G,SER-HEM-LIM-PY
9605	33	3A	2165	FELSIC TUFF,F.G-M.G,SER,Q.V.WITH PY
9607	16	18	320m	K-SPAR PORPH,GOSSAN,PYRITE
9608	16	18	770m	INTERM.VOLC,M.G.,MASSIVE,PY
9609	8	20	225m	FELSIC VOLC,SHEARED,SER,Q.VEINS,PY
9610	<5	20	590m	INT.VOLC,MASS,F.G.,Q.V.,PYRITE
9611	<5	21	410m	FEL.VOLC,SHEARED-SER-CARB-F.G,2mQ.V.
9612	<5	24	380m	FELSIC VOLC,SHEAR-SER-F.G,1mQ.V.STOCK.
9613	12	24	400m	FLOAT-QUARTZ
9614	26			VOLCANIC BRECCIA,FRAG <=25cm,CHL,Q.V.
9615	18			ARKOSIC SED,MASS,WELL SORT,Q.V.,PY
9616	6			SED,VERY FISSILE,CHERT BNDS,MUCH PY
9617	10	28	600m	FEL.TUFF/SED.F-M.G.,LIMON,MAGNETITE
9618	9	28	775m	INTERM.VOLC,MASS,F.G.,PYRITE
9619	<5	29	875m	FELSIC TUFF,SHEAR-F.G.,SER,PYRITE
9620	<5	31	120m	FELDS.PORPH,WEAK FOL.,F.G.PYRITE
9621	<5	31	480m	FEL.VOLC,SHEAR-SER,F.G.,1m Q.V.,PY
9622	6	31	540m	INT.VOLC.INTENSE Q.V.STOCK,POTAS.ALTR.

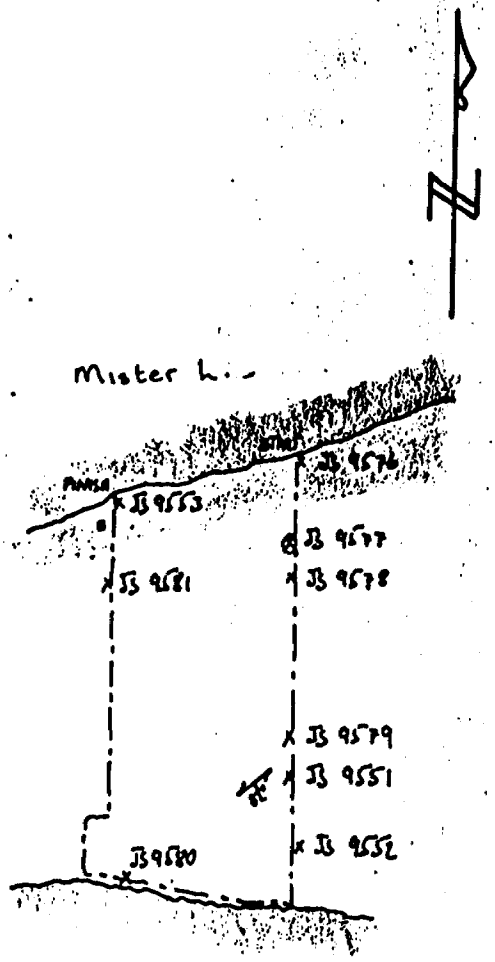
9623	19	31	1520m	FELSIC VOLC.MASS,F.G.,1-7%PY
9624	13	33	700m	FEL.VOLC,SHEAR,SER,F-M.G.,PYRITE
9625	15	33	785m	QUARTZITIC-WACKE,F.G.,CARB-VEINS,MAG.
9626	<5	13	375m	FEL.ROCK,APH,WEAK FOL.,2%PY,
9627	5	13	2600m	FEL-PYROCLASTIC,<=5cm,BNDE MATR.,PY
9628	7	13	2600m	AS 9627:10-15%PY,GOSSAN
9629	31	3A	1010m	FELSIC,WHITE,APH,1cmQ.V.,LIMON,PY
9630	<5	3A	1610m	MAFIC VOLC,Q.VEINLETS,<1%PY
9631	<5	3A	2150m	FELSIC,PINK,MOD.SHEAR.,Q.V.,QTZ=10%
9632	<5	3A	2175m	FELSIC,APHAN,WEAK FOL.,2%PY,
9633	6	3A	2250m	FLOAT-QUARTZ
9634	<5	17	400m	F.G.MAFIC VOLC.,Q.V.
9635	<5	17	1441m	FELSIC VOLC.MASSIVE,MINOR PYRITE
9636	<5	19	370m	FELSIC VOLC,INTEN.SHEAR.,
9637	<5	19	1685m	FELSIC VOLC,INT.SHEAR,Q.V.,PY,OLD TREN
9638	<5	19	1700m	SAMPLE OF QTZ FROM TRENCH AT #9637
9639	<5	19	1700m	SAMPLE OF FISSILE WALL AT #9637
9640	14	21	300m	FELSIC VOLC,MOD.SHEAR.,Q.V.,1%PY
9641	<5	21	300m	FEL.VOLC?,1.5mQ.V.,LIMON,
9642	7	21	475m	SAME AS 9611JS:FROM TRENCH 30m SE
9643	<5	21	1450m	FELSIC VOLC,F.G.,CHERTY BNDS,Q.V.,PY.
9644	<5	23	320m	FELSIC VOLC,Q.V.,CARBONATE
9645	<5	13	2600m	40m S OF 9627/28JS:PYROCL.WITH PY.
9646	<5	SHORELINE		MAFIC VOLC,CHLORITIZED,Q-C VEINS
9647	<5	SHORELINE		PLATY ROCK ,F.G.,REB/BLACK BNDS,MAG.
9648	8	SHORELINE		FELSIC ROCK,PLATY,GREY,RED BNDS,2%PY
9649	<5	28	1030m	SILICEOUS,FEL? ROCK,APH,CHERTY ZONES
9650	<5	28	1805m	FELSIC,INTEN.SHEARED,PYRITE
9651	<5	18	1085m	INTERM. VOLC,F-M.G.,PYRITE
9652	<5	18	1165m	FLOAT-CONGLOMERATE
9653	<5	19	375m	HIGH.ALTER/SCHISTOSE,GOSSAN,QTZ FRAGS.
9654	<5	19	1906m	FLOAT-QUARTZ
9655	150	22	250m	QUARTZ-VEINED OUTCROP,PY-ASPY?,SER.
9656	6	24	350m	INTERM.VOLC/Q.V.STOCK.
9657	<5	25	90m	INTER.VOLC.,ELONGATE MAF/QTZ INCLU.
9658	9	25	285m	SILICEOUS ROCK/PERVASIVE FE-STAIN
9659	16	25	1290m	FLOAT-QUARTZ
9660	<5	SHORELINE		INT.VOLC.,MASS,F.G.,VEINLETS OF PY
9661	11	27	100m	SILICEOUS,SHEARED,SERICITIZED OUTCROP
9662	6	27	335m	FELDSPAR PORPH,MASSIVE
9663	<5	27	1250m	FLOAT-ANGULAR QUARTZ
9664	<5	27	2013m	SHEARED/SERICITIZED/SILICEOUS/PY
9665	<5	30	865m	Q.VEINS <15cm,PY,INF.G.FOLIATED ROCK
9666	<5	31	200m	FELSIC VOLCANIC,SHEARED/SERICITIZED,PY
9667	21	31	1520m	FELSIC VOLC.,MASS-WEAK.FOL.,PY-CPY?
9668	11	31	1650m	CHERT,GREY,PYRITE
9669	19	31	1575m	VOLC.BRECCIA,MASS,FRAGS<10cm,CHERT.RHY
9670	16	30A	1475m	INT.VOLC.,MASS,M.G,CHERT FRAGS,PY BNDS
9671	16	32	140m	OLD TRENCH-SER.WALL,CHL.QTZ,PY-MAG
9672	14	33	200m	FELSIC VOLC,PYRITE
9673	10	35	375m	CHLORITIZED INTERM. WITH Q.V.
9674	54	36	375m	INTERM.VOLC,MASS-WEAK.FOL,FEL.FRAGS,

9675	42	36	475m	CHLORITIZED WALL,QV<1m,
9676	6	17	670m	FELSIC VOLC,Q.V.<15cm
9677a	<5	17	1540m	FELSIC VOLC,Q.V.<70cm,
9677b	18	20	1835m	FELSIC TUFF,SILICEOUS/SERICITIC/5%PY
9678	<5	23	85m	FEL.VOLC.HIGHLY SHEARED,HEM-LIM-BNDS
9679	<5	23	450m	FLOAT-IN OLD TRENCH QUARTZ
9680	60	25	30m	MASS.VOLC,QTZ FRAGS,FELDS,F.G.MATRIX
9681	12	25	400m	INTERM.VOLC.10%ANKERITE,MINOR SERICITE
9682	<5	25	1286m	FLOAT-QUARTZ/ANKERITE
9683	<5	27	148m	INTERM.VOLC.2mm QTZ FRAGS.,1%PYRITE
9684	<5	27	1200m	MASS.FEL.VOLC,2%PYRITE,CARB
9685	9	27	1796m	ON MANITOU STRETCH:GOSSAN/CRUMPLED
9686	<5	30	225m	INTERM.VOLC,4%PY,5%CALCITE
9687	6	30	1150m	FEL-INT.CONTACT ZONE,Q.V.15cm,CHL
9688	6	42	284m	FELSIC TUFF,SIL.,MINOR SER,LIM-HEM
9689	20	SHORELINE		MAFIC VOLC,Q.V.,CHL,RUSTY
9690	12	SHORELINE		FELSIC TUFF,HIGHLY SIL.,2%PYRITE
9691	15	SHORELINE		INTERM.VOLC.QTZ-FELD-CARB,MINOR PY
9692	13	SHORELINE		MAFIC VOLC.,V.F.G.,1%PY
9693	7	36A	230m	<20cmQ.V.,HOST MASSIVE,RUSTY
9694	11	36A	425m	FELSIC VOLC,SILICEOUS,RUSTY
9695	8	36A	660m	FELSIC VOLC,SILICEOUS,RUSTY
9696	13	36A	MAP	FLOAT-ANGULAR QUARTZ
9697	11	31A	200m	FLOAT-GOSSANOUS VOLCANIC
9698	8	44	1675m	FELSIC VOLC.,SILICEOUS,LIM-HEM,MIN.PY
9699	13	18A	290m	INTERM.VOLC,PARTLY SILICIFIED,PY
9700	13	18A	380m	FELSIC VOLC,GOSSANOUS,10%PYRITE

TRAVERSE #1
1:10,000
JUNE 12th/83
J. SCOUTEN ; S. JOHNSTON



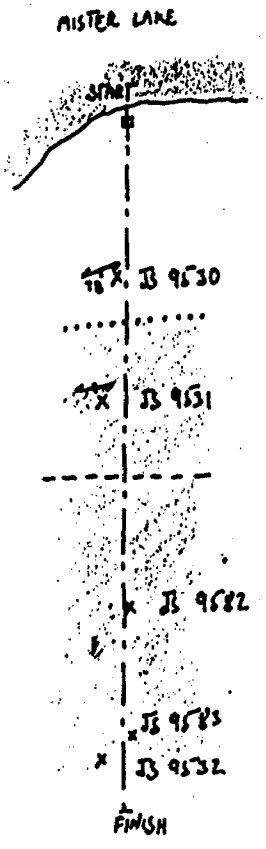
TRAVERSE ROUTE
CLAIM LINE
ESCARPMENT
x SAMPLE LOCATION
⊙ SAMPLE OF FLOAT
JB 9526 SAMPLE NO.
..... LIMIT OF SHEARING
AREA OF SHEARING



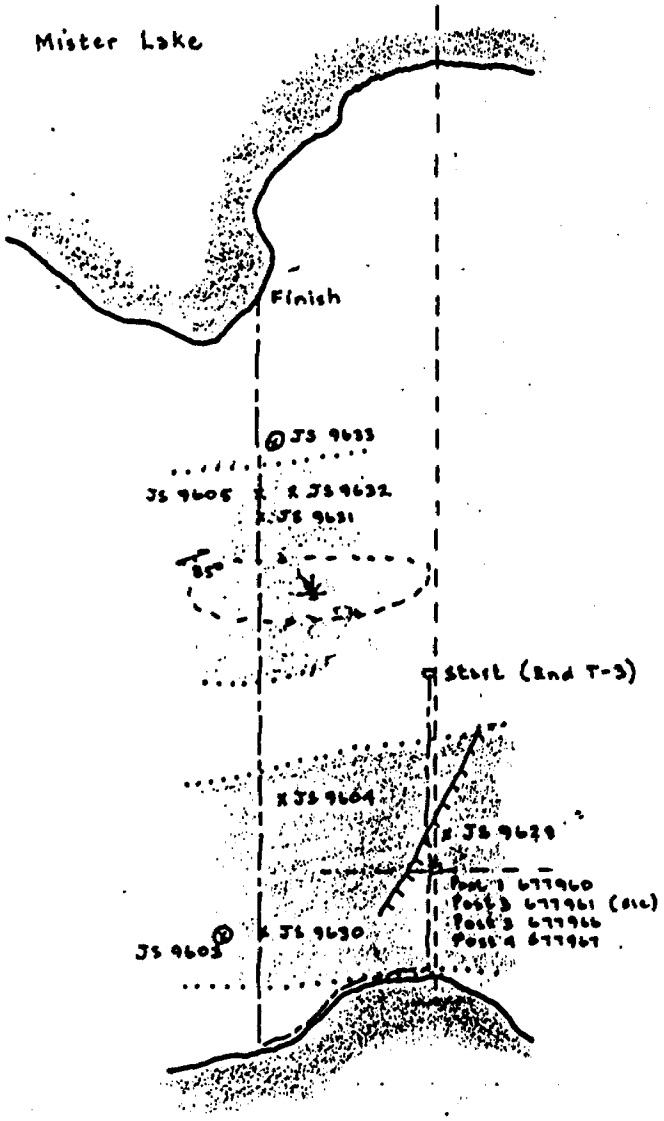
TRAVERSE #2
1 : 10,000
JUNE 12TH/83
R. NIXON ; D. SCOUTEN

—·—·— TRAVERSE ROUTE
× SAMPLE LOCATION
JB 9576 SAMPLE NO.
⊕ FLOAT
▨ AREA OF SHEARING

TRAVERSE #3
1 : 10,000
JUNE 13th/83
J. SCOUTEN ; R. NIXON



—·—·—	TRAVERSE ROUTE
- - - - -	CLAIM LINE
□	CLAIM POST
×	SAMPLE LOCATION
JS 9530	SAMPLE NO.
.).....	LIMIT OF SHEARING
:::::	AREA OF SHEARING

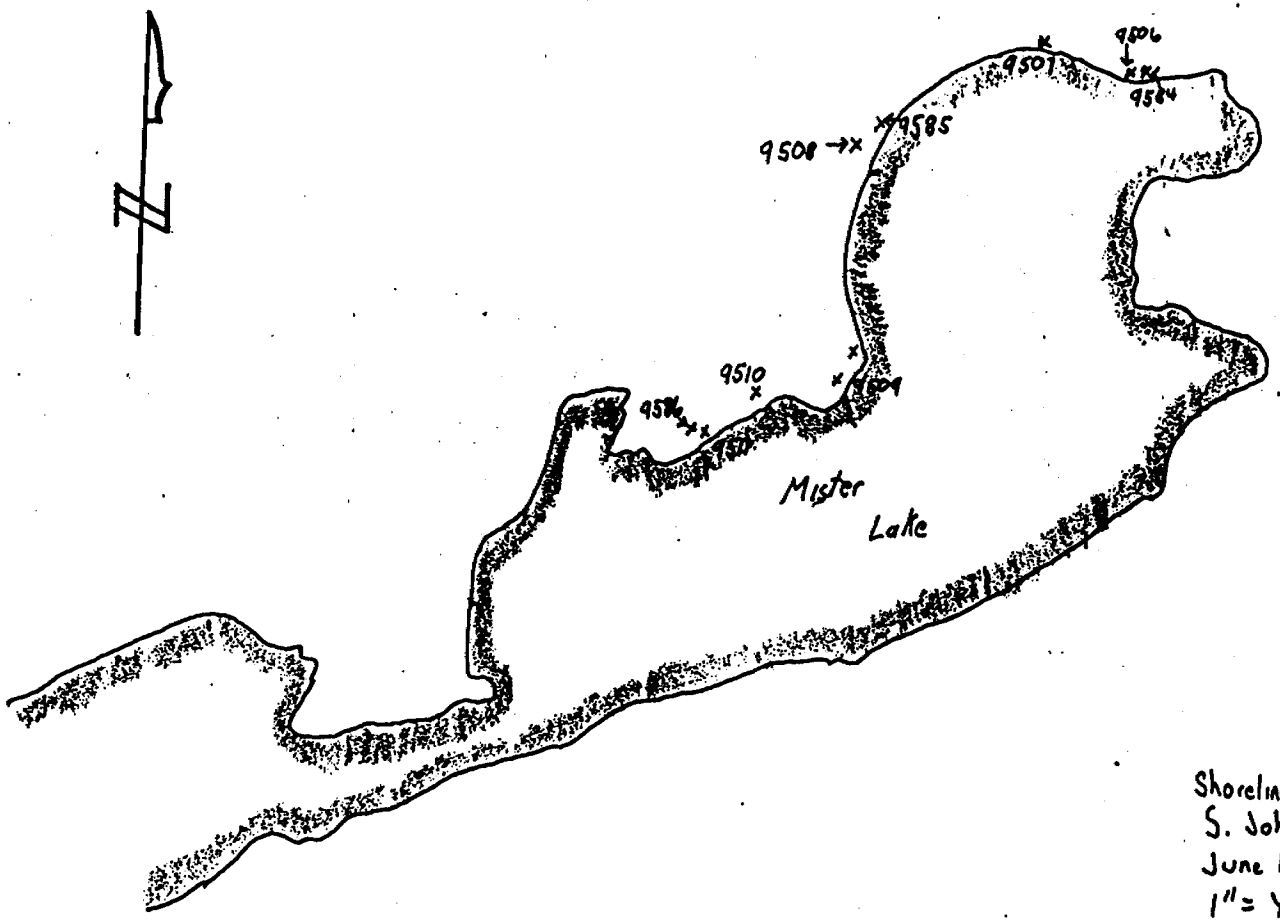


Manitou Stretch

TRAVERSE 3A

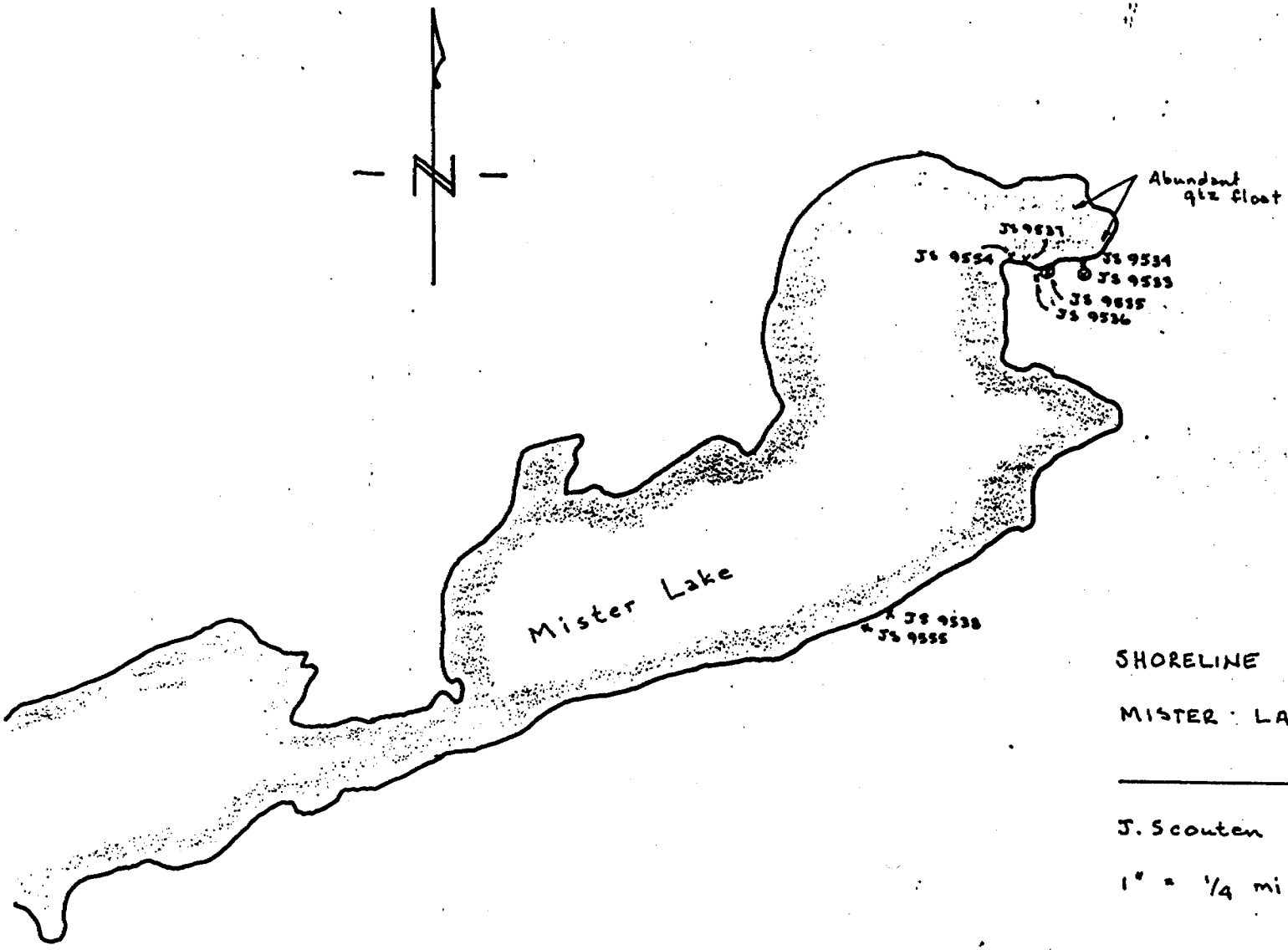
J. Scouten , S. Johnston
June 22 , 1983
1 : 10,000

———	Traverse Route
x JS 9629	Rock sample location; number
◉	Float
▫	Claim post
- - - - -	Claim line
	Escarpment
.....	Extent of shearing
	Area of shearing



Shoreline Prospecting
S. Johnston & R. Nixon
June 15, 1983
1" = ¼ mile

× 9511 Sample location; Number



SHORELINE PROSPECTING

MISTER LAKE (JUNE 15, 1983)

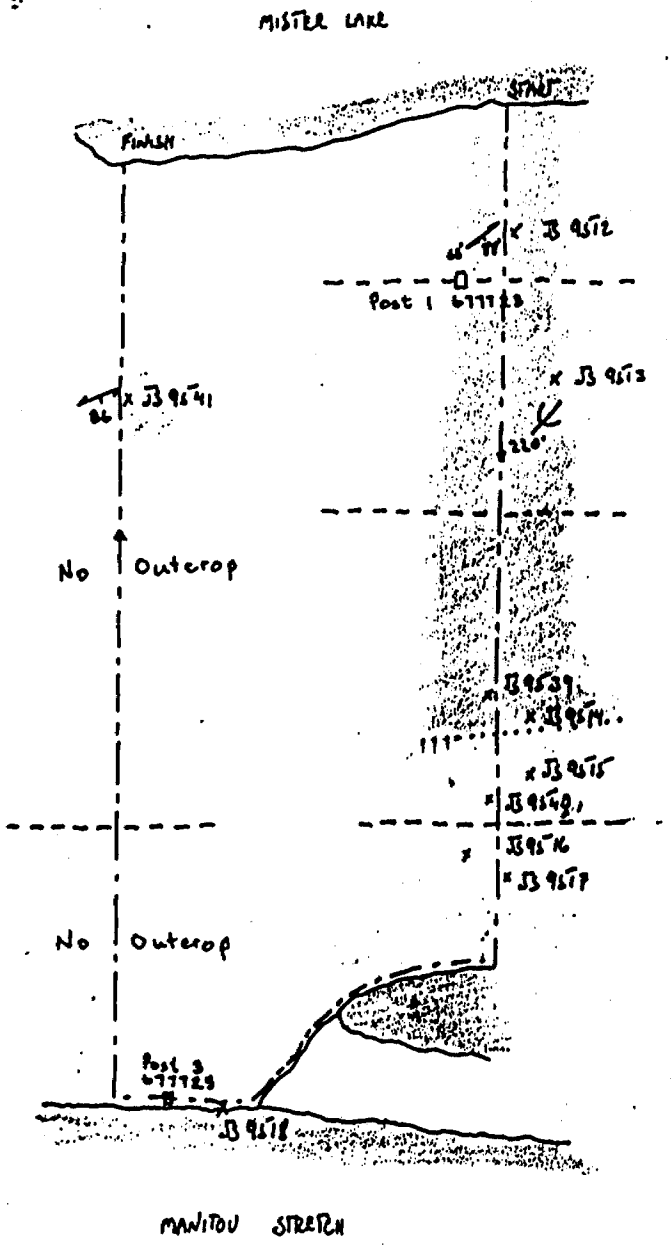
J. Scouten ; D. Scouten

1" = 1/4 mi

× Js 9565 Rock sample location; number

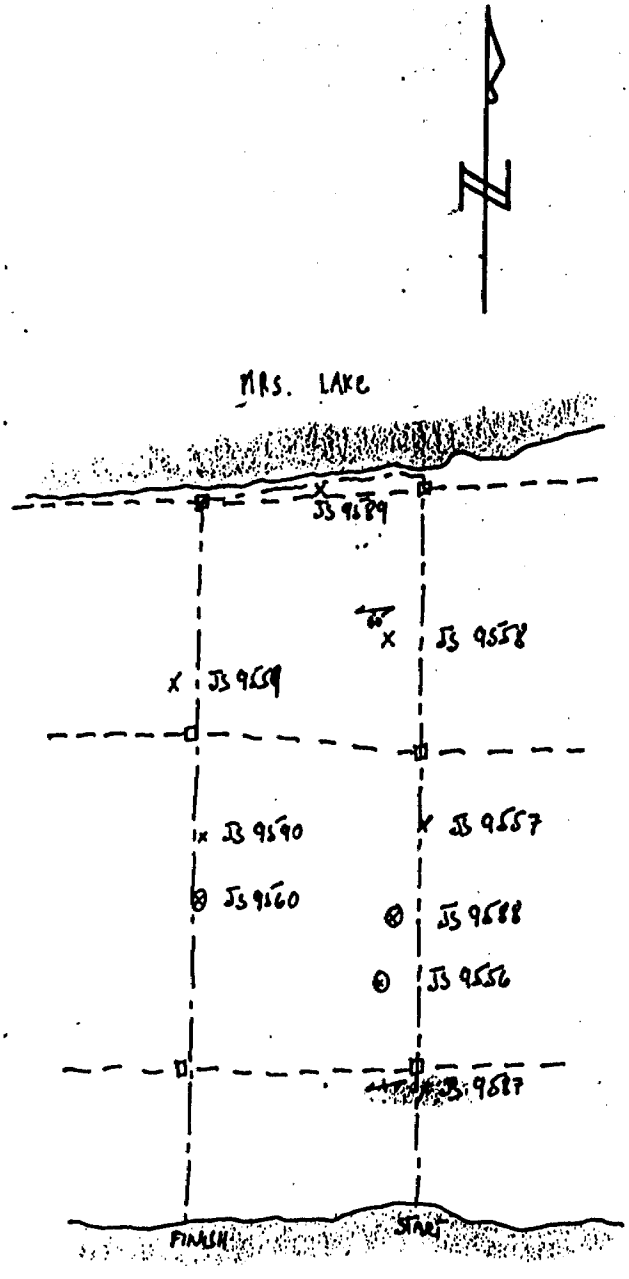
⊙ Float

TRAVERSE #4
1:10,000
JUNE 16/83
J. SCOUTEN ; S. JOHNSTON



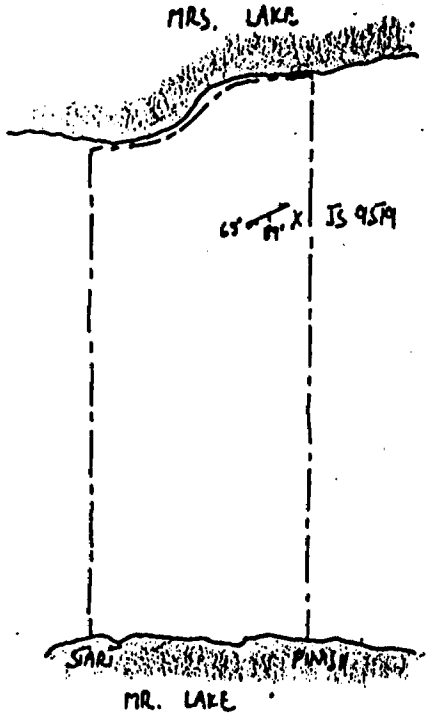
— · — · TRAVERSE ROUTE
- - - - - CLAIM LINE
□ CLAIM POST
× SAMPLE LOCATION
JS 9512 SAMPLE NO.
. . . . . LIMIT OF SHEARING
AREA OF SHEARING
→ GLACIAL STRIA

TRAVERSE #6
1 : 10,000
JUNE 16/83
D. SCOUTEN, R. HIXON

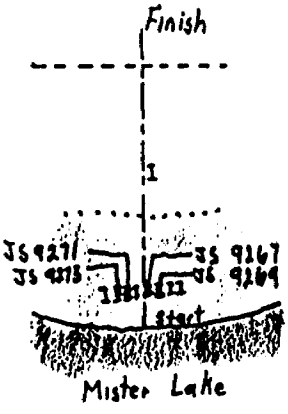


TRAVERSE ROUTE
CLAIM LINE
CLAIM POST
SAMPLE LOCATION
SAMPLE OF FLOAT
JS 9557 SAMPLE NUMBER
Area of shearing

TRAVERSE #6
1:10,000
JUNE 17/83
S. JOHNSTON, D. SCOUTEN



—·—·— TRAVERSE
X SAMPLE LOCATION
JS 9519 SAMPLE NUMBER

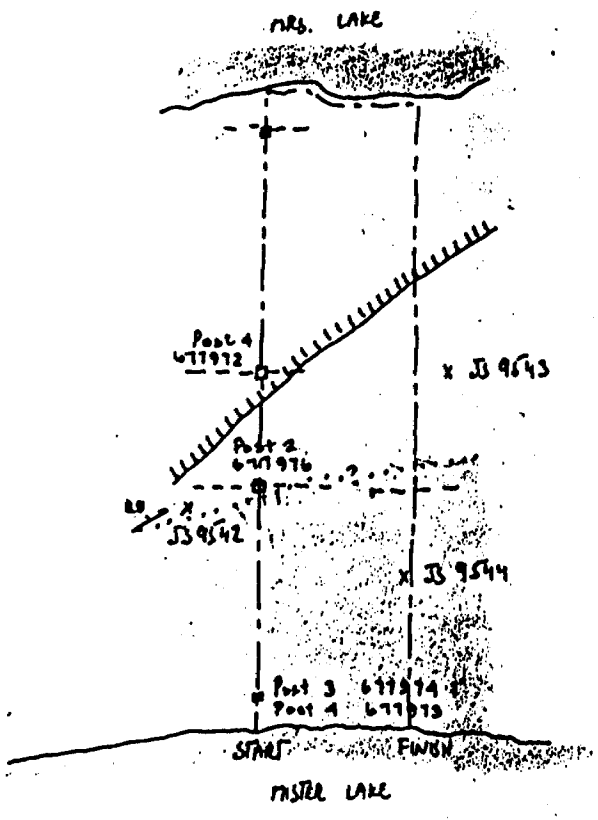


Traverse 6a.

J. Scouten
July 21, 1983
1: 10,000

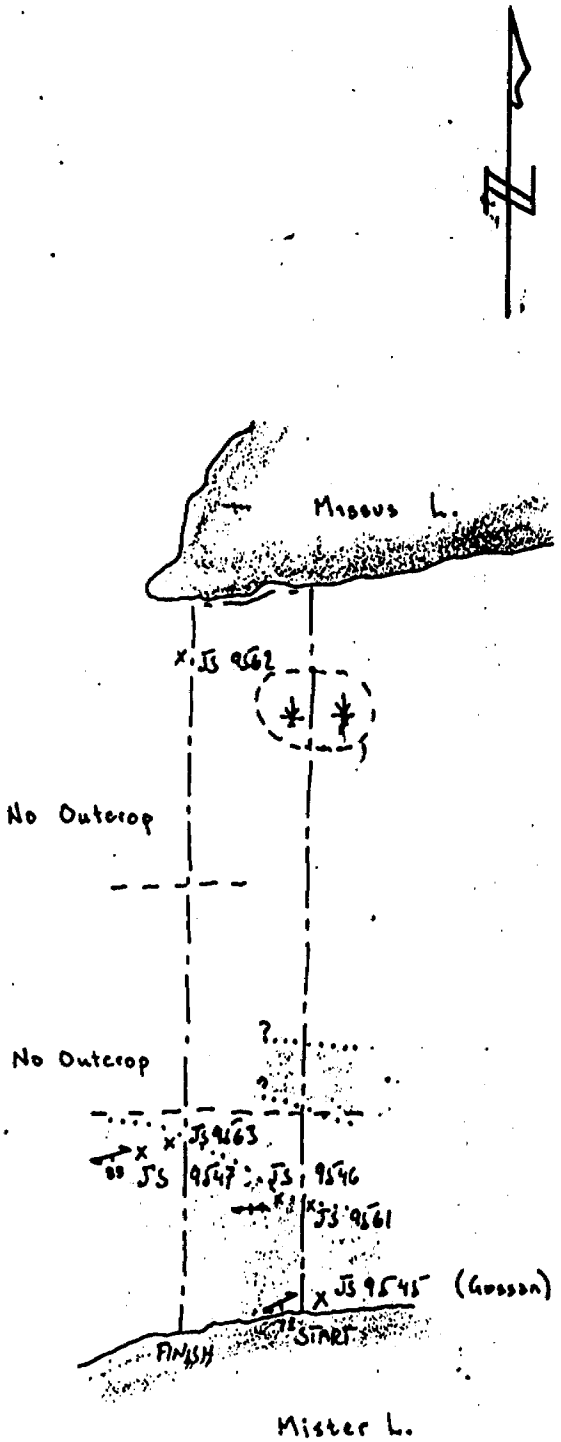
—·——·—	Traverse Route
———	Claim Line
x JS 9273	Sample Location; Number
.....	Area of Shearing
I	Trench Location

TRAVERSE # 7
1:10,000
JUNE 17/83
J. SCOUTEN ; R. NIXON

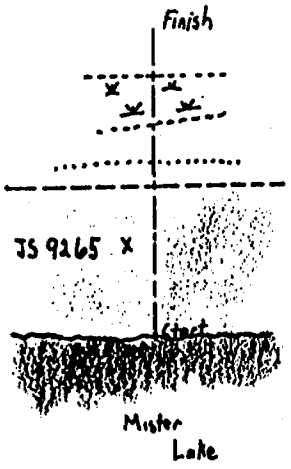


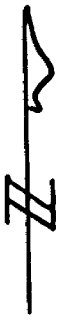
— · — · —	TRAVERSE
- - - - - -	CLAIM LINE
□	CLAIM POST
|||||||||	ESCARPMENT
x	SAMPLE LOCATION
JJ 9543	SAMPLE NUMBER
.....	LIMIT OF SHEARING
	AREA OF SHEARING

TRAVERSE NO. 8
1 : 10,000
JUNE 18 / 83
J. SCOUTEN , D. SCOUTEN



— · — · —	TRAVERSE ROUTE
— — — —	CLAIM LINE
x	SAMPLE LOCATION
JS 9547	SAMPLE NO.
.....	LIMIT OF SHEARING
	AREA OF SHEARING





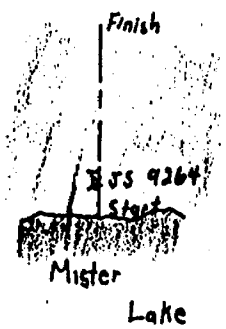
Traverse - 8a

R. Nixon ; J. Scouten
July 21, 1983
1: 10,000

———	Traverse Route
x JS9265	Sample location; Number
- - - - -	Claim Line
	Swamp
	Area of Shearing

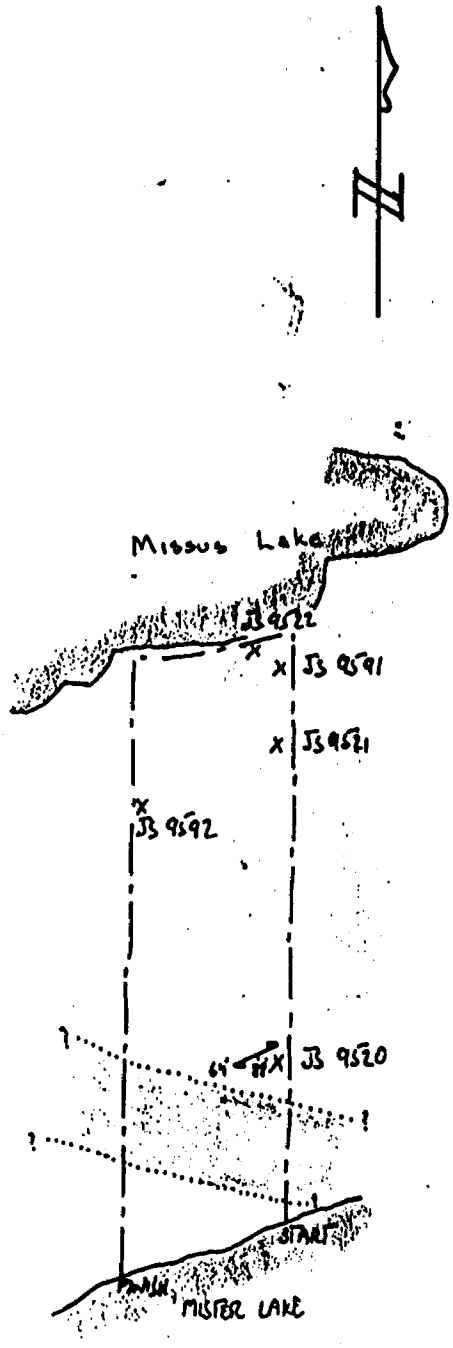
Traverse 8b

R. Nixon
July 21, 1983
1: 10,000



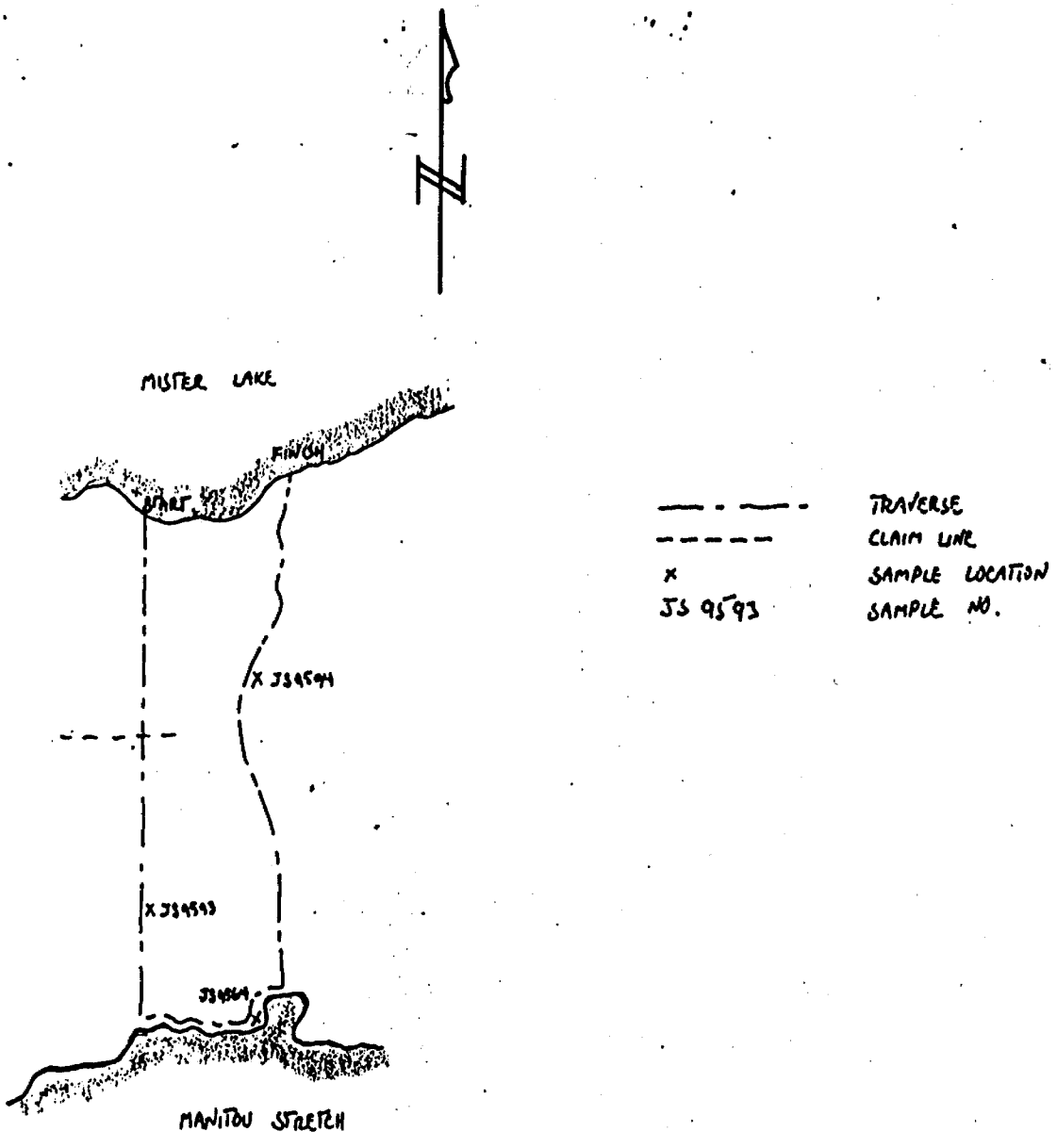
—·—·— Traverse Route
x JS 9264 Sample Location
Area of Shearing
I Trench Location

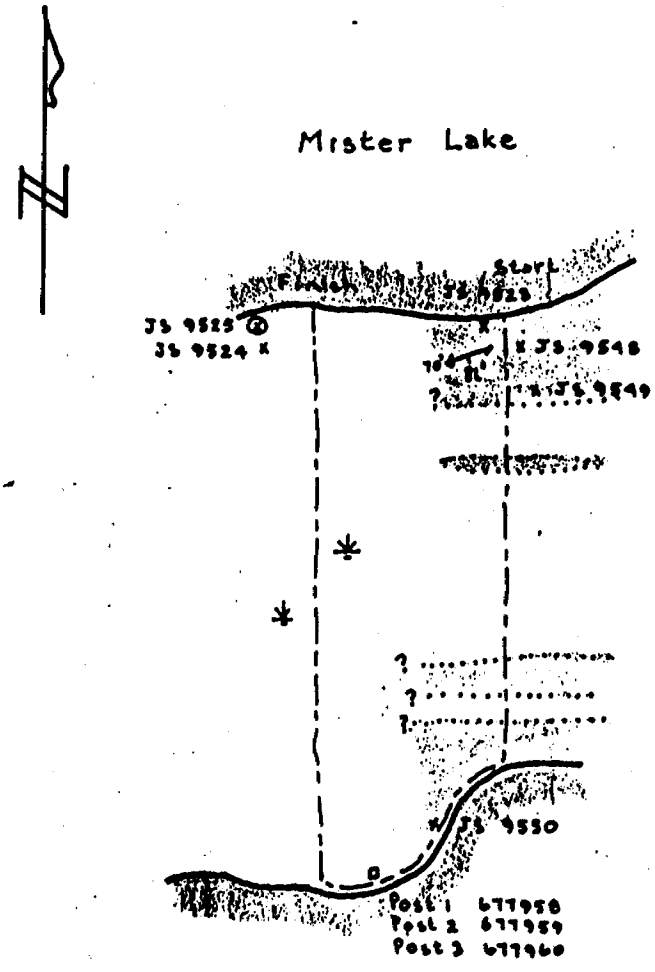
TRAVERSE # 9
1 : 10, 000
JUNE 18/83
S. JOHNSTON, R. NIXON



———	TRAVERSE
X	SAMPLE LOCATION
JS 9521	SAMPLE NO:
?.....	LIMIT OF SHEARING
	AREA OF SHEARING

TRAVERSE #10
1:10,000
JUNE 19/83
D. SCOUTEN, R. NIXON

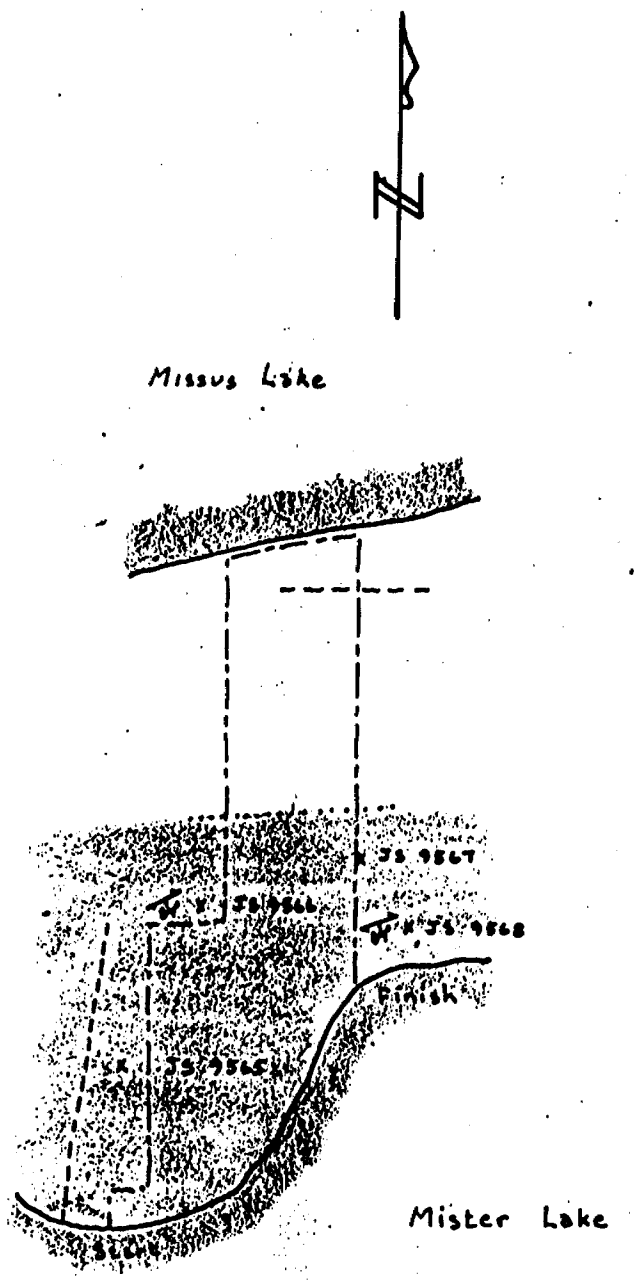




TRAVERSE II
J. Scowlen ; S. Johnston
June 19, 1983
1 : 10,000

Manitou Stretch

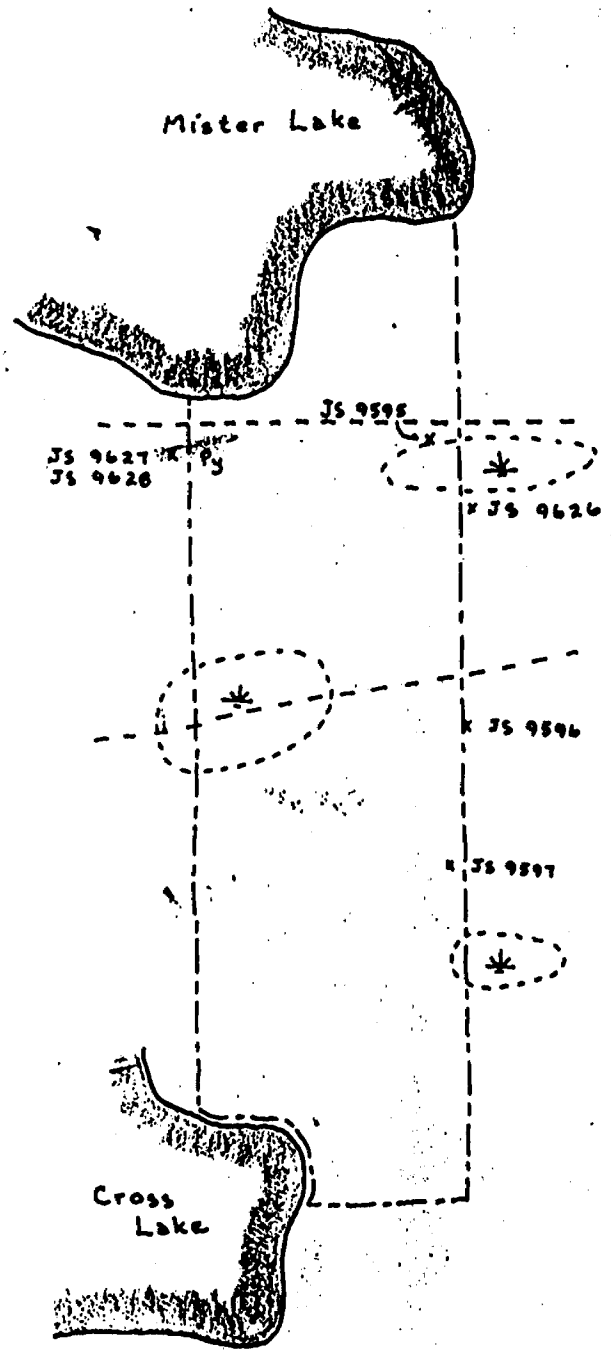
-----	Traverse Route
□	Claim Post
x JS 9550	Rock sample location ; number
Ⓕ	Float
.....	Limit of Shearing
	Area of Shearing
✱	Swamp



TRAVERSE 12

S. Johnston ; D. Scouten
June 20, 1983
1 : 10,000

—·—·— Traverse Route
----- Claim Line
x JS 9568 Rock sample location ; number
..... Limit of shearing
Area of shearing



TRAVERSE 13

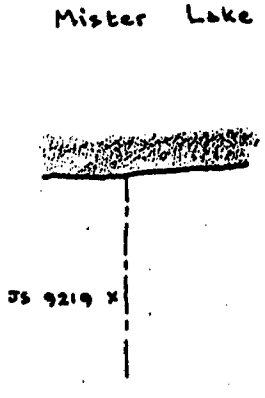
J. Scouten ; R. Nixon
June 20 , 1983
1 : 10,000

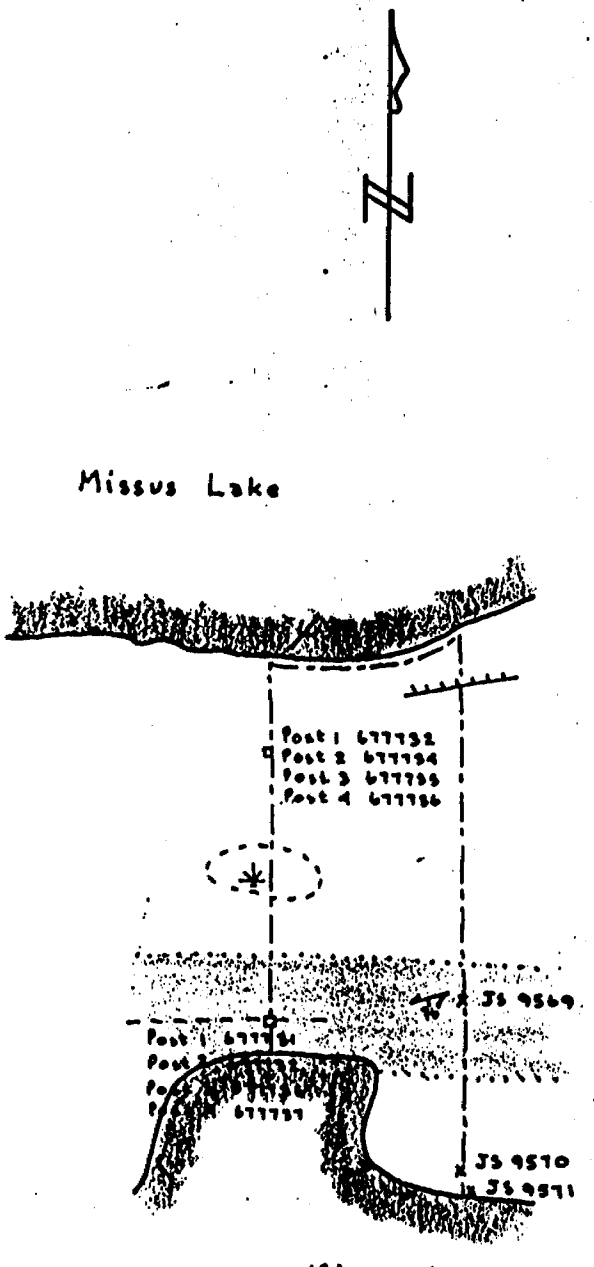
———	Traverse Route
- - - - -	Claim Line
x JS 9595	Rock sample location ; number
	Area of Shearing
✱	Swamp.
Py	Pyrite

TRAVERSE 13 A

J. Scouten ; R. Nixon
July 19, 1983
1:10,000

—.—.— Traverse Route.
× Js 9219 Rock sample location; number.

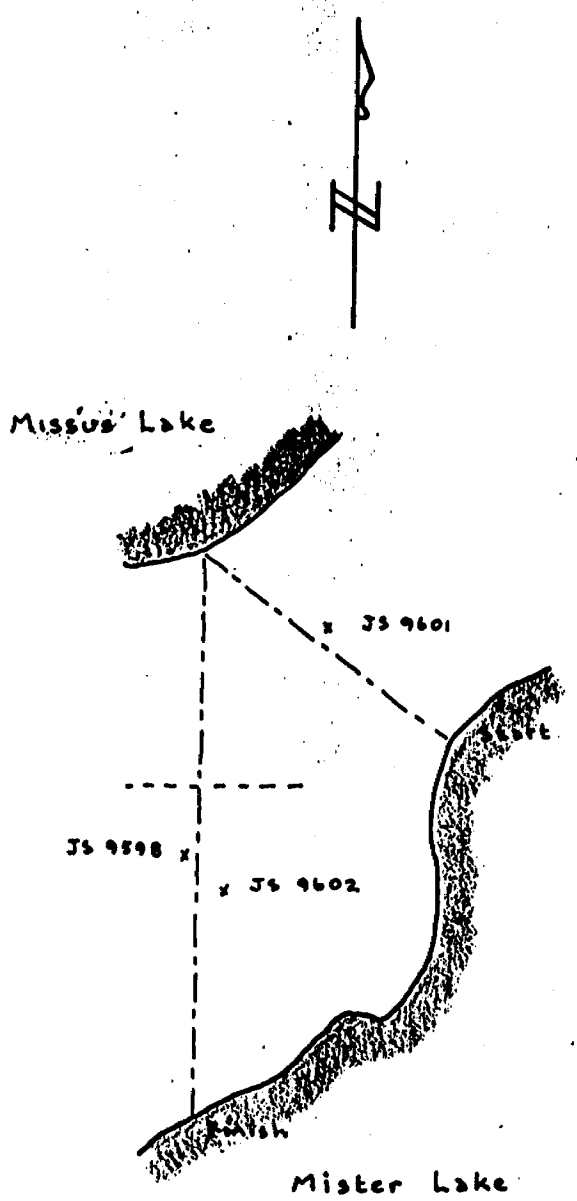




TRAVERSE 14

J. Scouten ; D. Scouten
June 21 , 1983
1 : 10,000

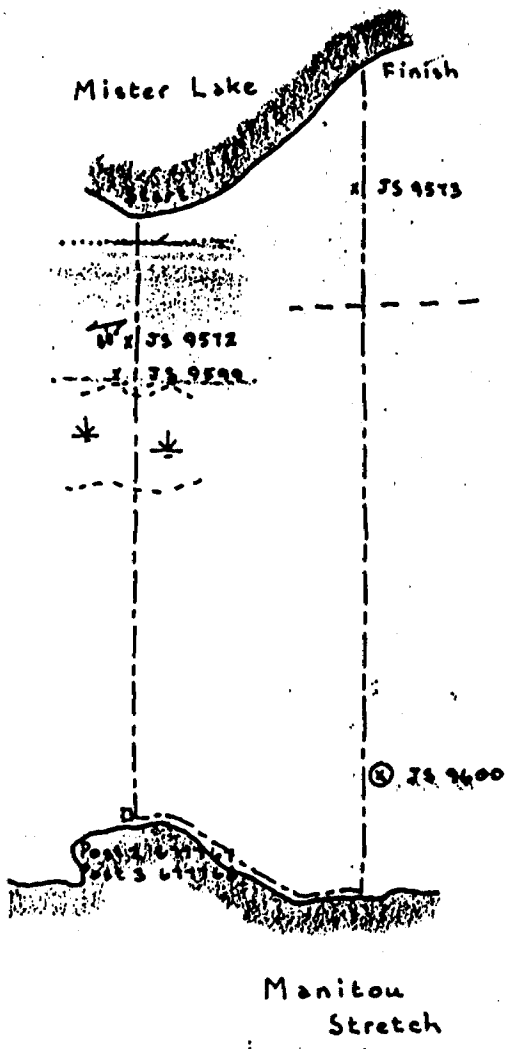
— · — · —	Traverse Route
▫	Claim Post
⌇⌇⌇⌇⌇	Escarpment
↙	Direction of Glacial Movement
.....	Limit of shearing
▒▒▒	Area of shearing
- - - - -	Claim Line



TRAVERSE 15

S. Johnston ; R. Nixon
June 21, 1983
1 : 10,000

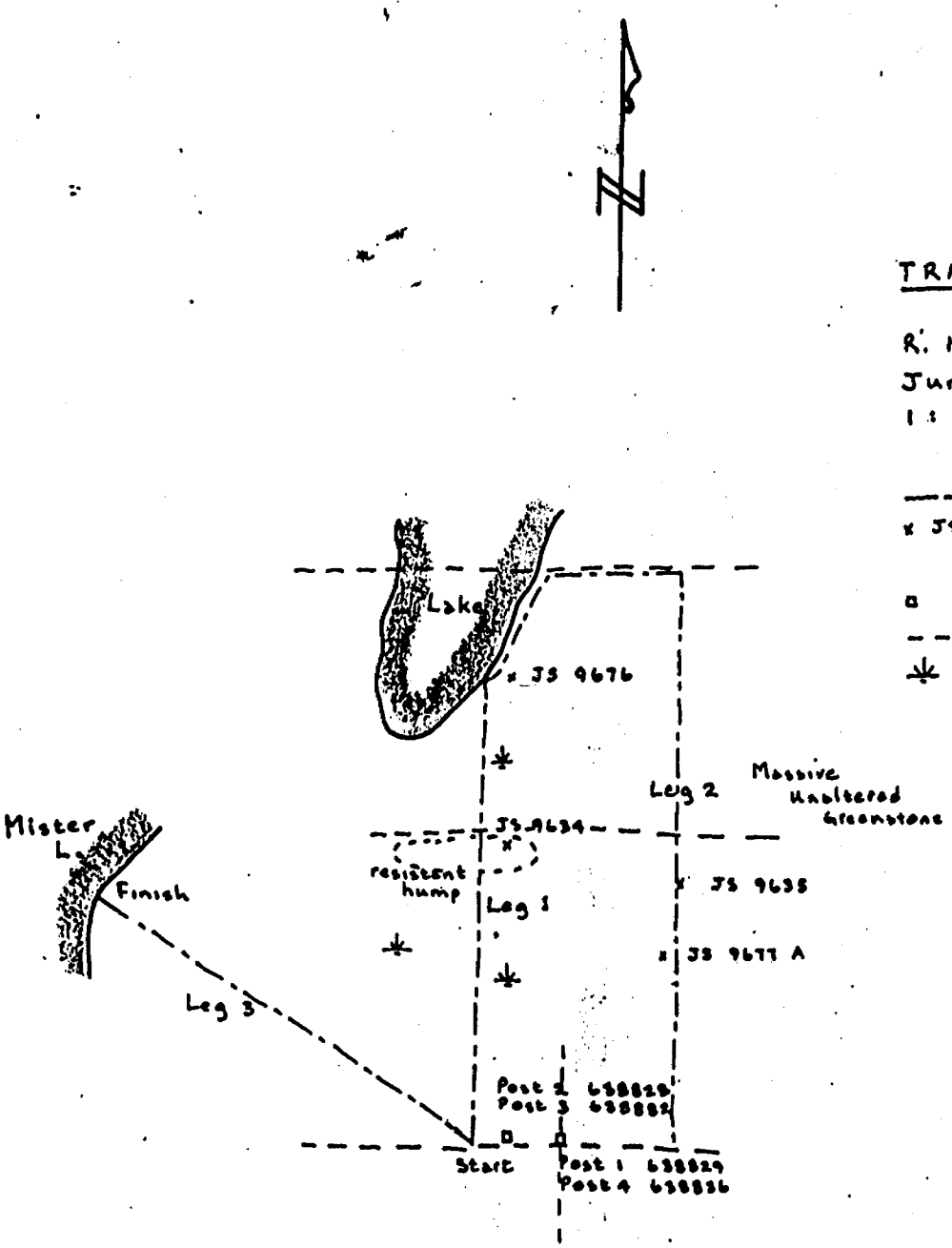
-----	Traverse Route
x JS 9601	Rock sample location ; number
- - - - -	Claim line



TRAVERSE 16

D. Scouten ; R. Nixon
June 22, 1983
1:10,000

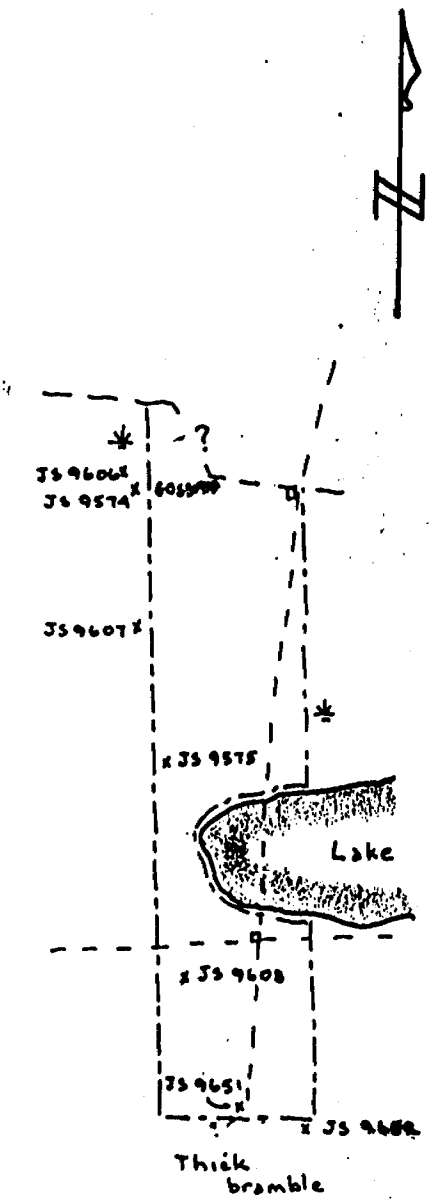
———	Traverse Route
x JS 9600	Rock sample location ; number
⊙	Float
▫	Claim post
- - - - -	Claim line
✱	Swamp
	Area of Shearing



TRAVERSE 17

R. Nixon ; J. Scouten
June 23 , 1983
1 : 10,000

——·—·	Traverse Route
x JS 9635	Rock sample location ; number
□	Claim post
- - - -	Claim line
⚹	Swamp.



TRAVERSE 10

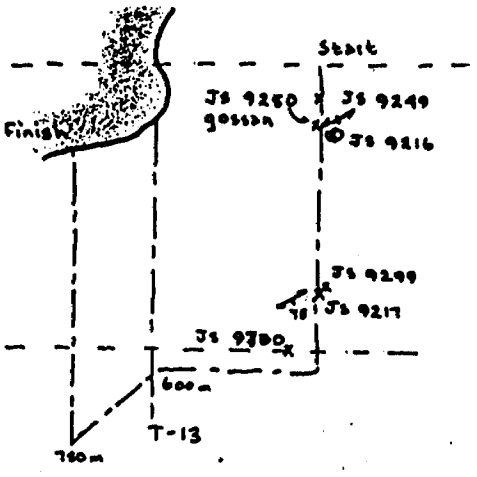
D. Scouten ; S. Johnston
June 23, 1983
1:10,000

— - — -	Traverse route
x JS 9575	Rock sample. location ; number
◻	Claim post
- - - -	Claim line
⚹	Swamp

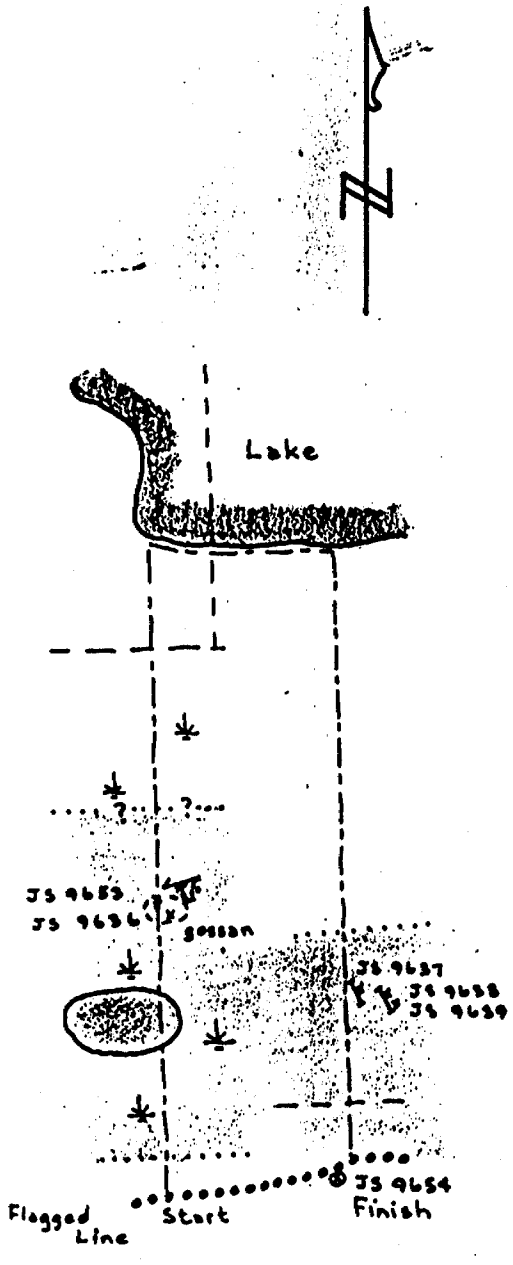
TRAVERSE .18 A

J. Scouten; R. Nixon
July 19, 1983
1:10,000

Mister Lake



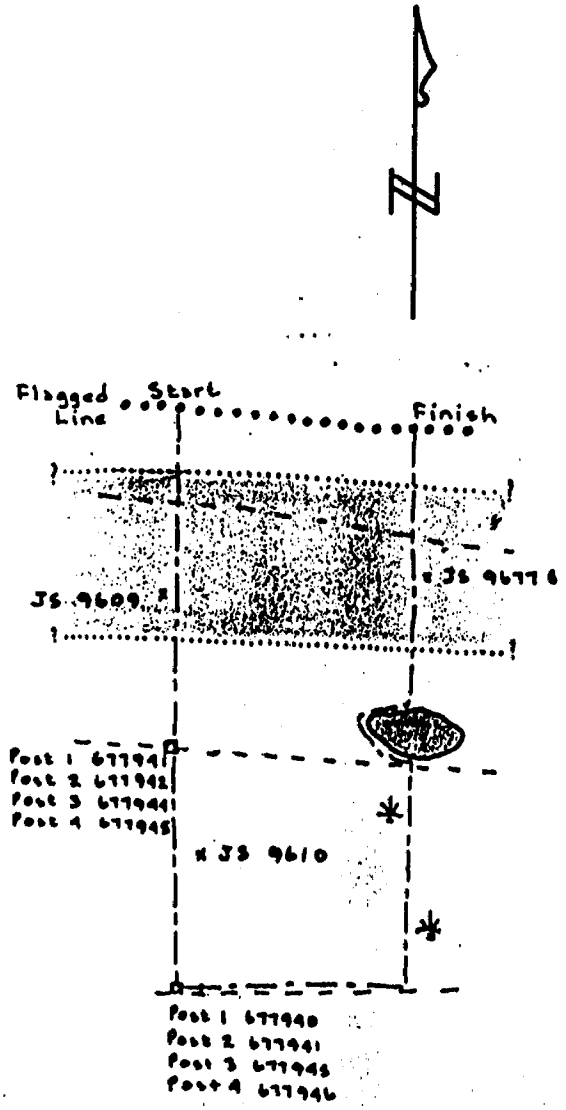
——·——·	Traverse route
x JS 9217	Rock sample location; number
⊗	Float
— — — —	Claim line



TRAVERSE 19

J. Scouten ; D. Scouten
June 24 , 1983
1 : 10,000

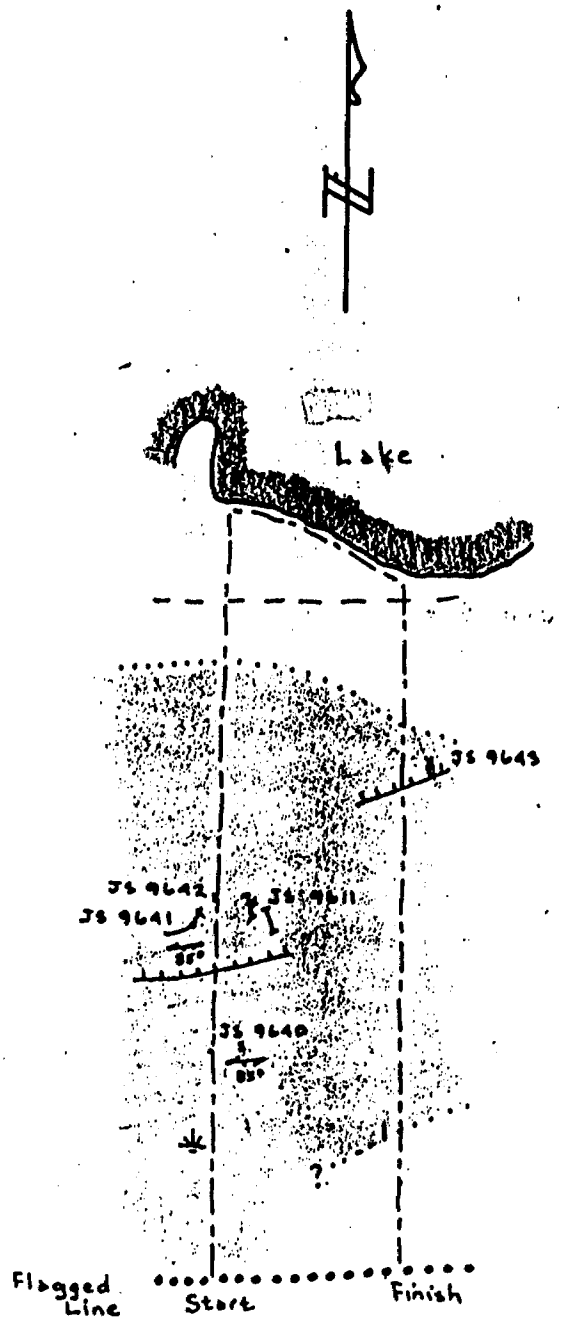
— · — ·	Traverse route
x JS 9637	Rock sample location ; number
- - - - -	Claim line
.....	Limit of shearing Area of shearing
	Trench
⊗	Float
	Swamp



TRAVERSE 20

R. Nixon ; S. Johnston
June 24, 1983
1 : 10,000

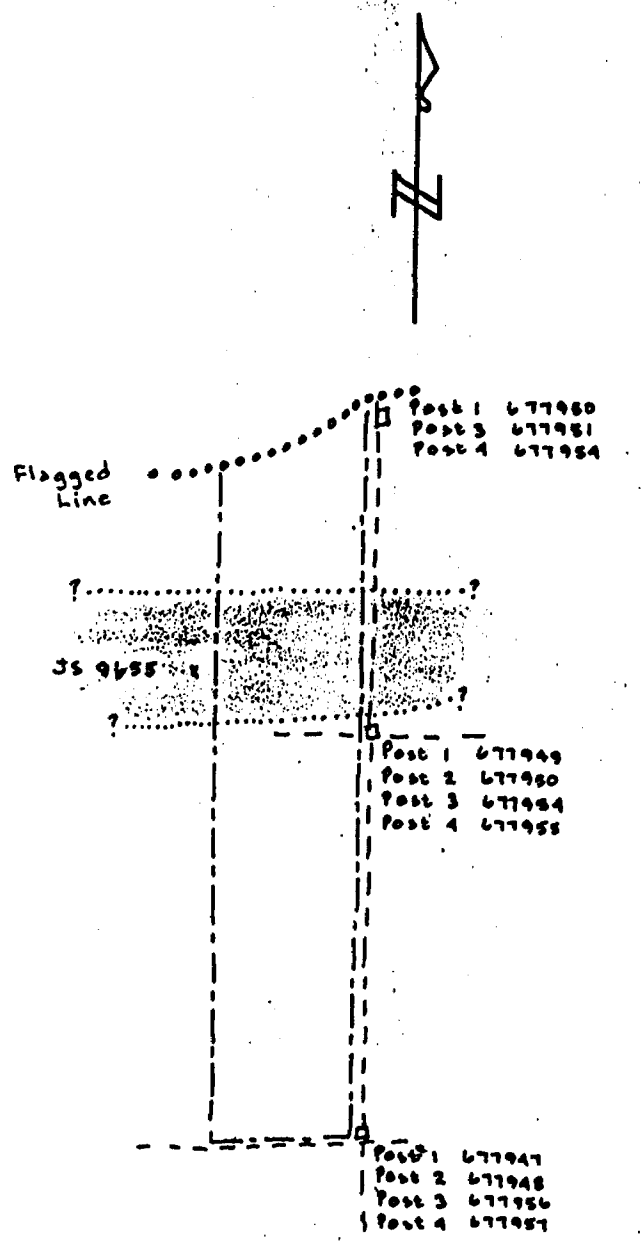
— — —	Traverse route
x JS 9609	Rock sample location; number
- - - - -	Claim line
	Swamp
	LIMIT OF SHEARING
	AREA OF SHEARING



TRAVERSE . 21

J. Scouten ; S. Johnston
June 25 , 1983
1 : 10,000

— - — -	Traverse route
x JS 9643	Rock sample location ; number
	Escarpment
.....	Limit of shearing
	Area of shearing
- - - -	Claim line
	Trench
	Swamp



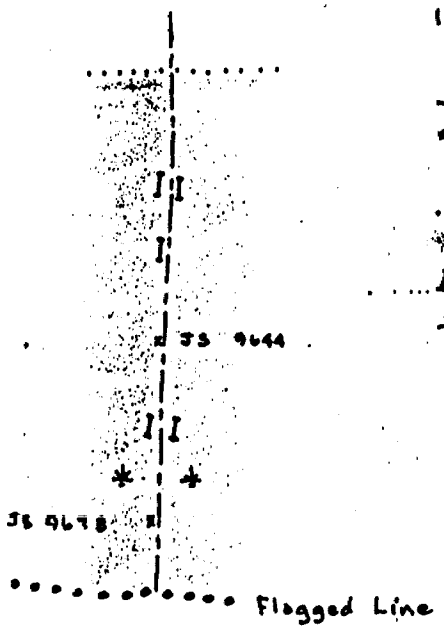
TRAVERSE 22

D. Scouten ; R. Nixon
June 25, 1983
1 : 10,000

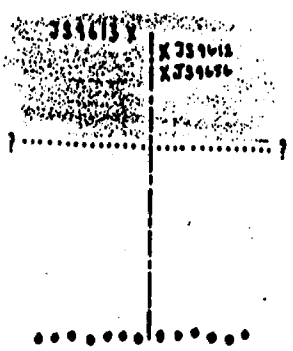
— · — · —	Traverse route
x JS 9655	Rock sample location; number
□	Claim post
— — — —	Claim line
?.....	Limit of shearing
	Area of shearing

TRAVERSE 23

J. Scouten ; R. Nixon
June 26 , 1983
1 : 10,000



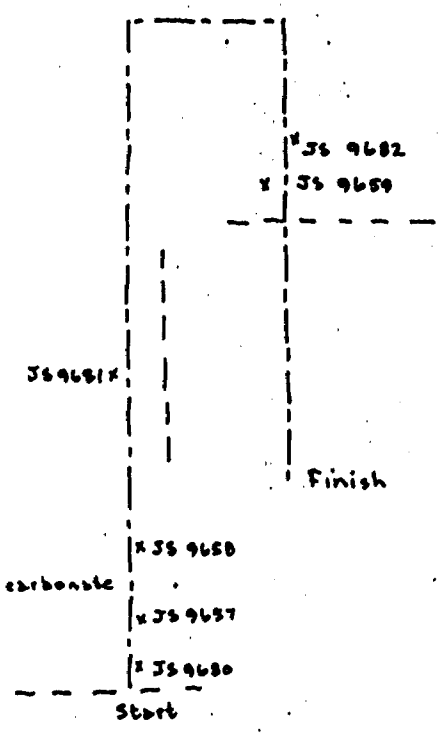
——.——.	Traverse Route
x JS 9644	Rock sample location ; number
.....	Limit of Shearing
	Area of Shearing
I	Trench
⁂	Swamp



Traverse 24

D. Scouten, S. Johnston
June 26, 1985
1:10,000

—·—·—	Traverse Route
x JS9656	Rock sample location; number
.....	LIMIT OF SHEARING
	AREA OF SHEARING

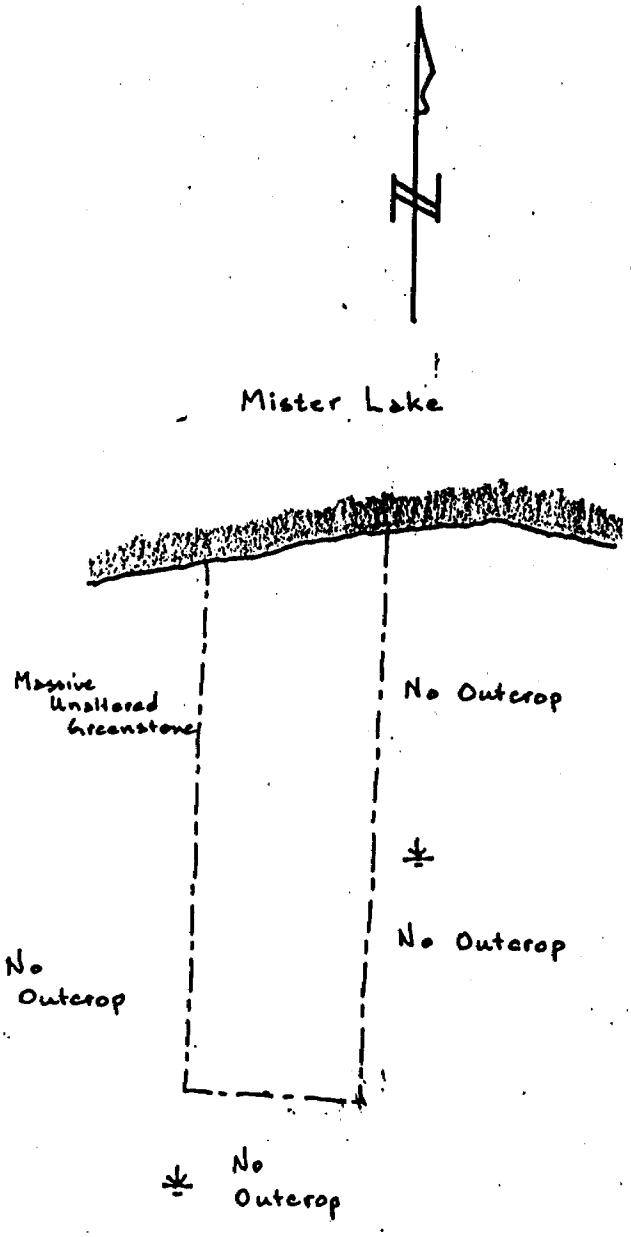


TRAVERSE 25

R. Nixon ; D. Scouten
June 29 , 1983

—·—·— Traverse route
x JS 9682 Rock sample location ; number
— — — — Claim line

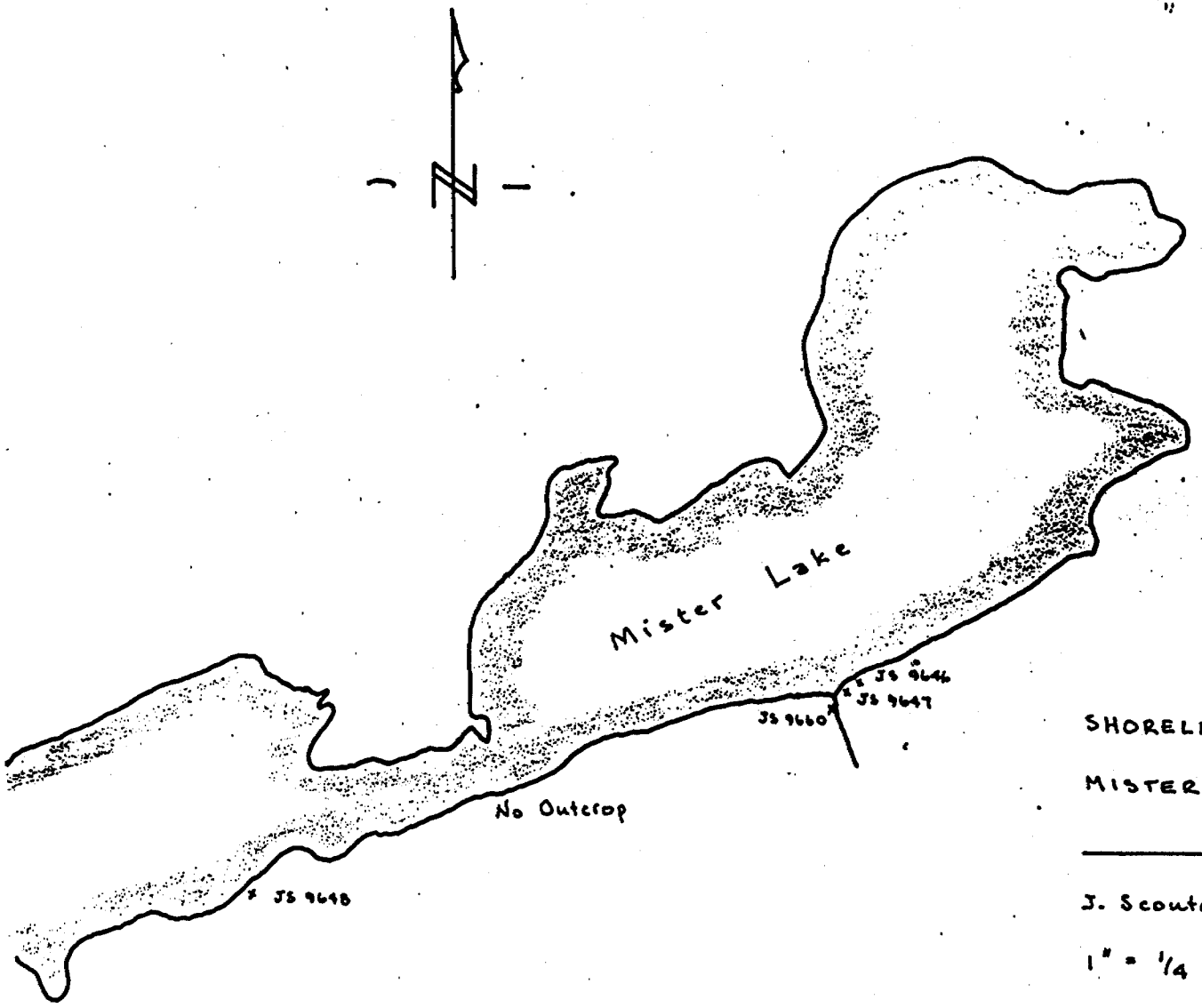
1 : 10,000



TRAVERSE 26

J. Scouten
June 29, 1983
1:10,000

——— Traverse route
Swamp.



SHORELINE PROSPECTING

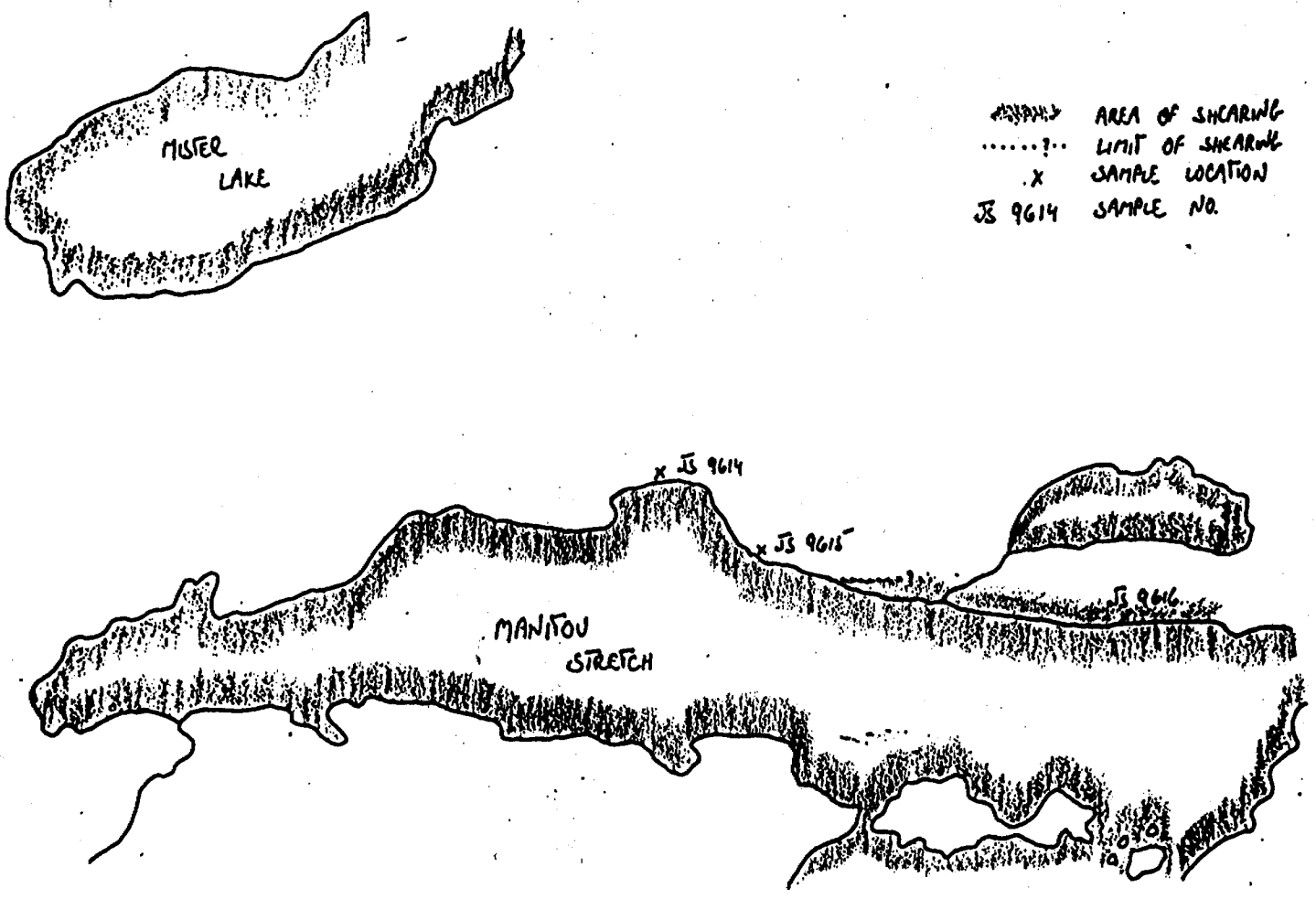
MISTER LAKE (JULY 1, 1983)

J. Scouten ; D. Scouten

1" = 1/4 mi

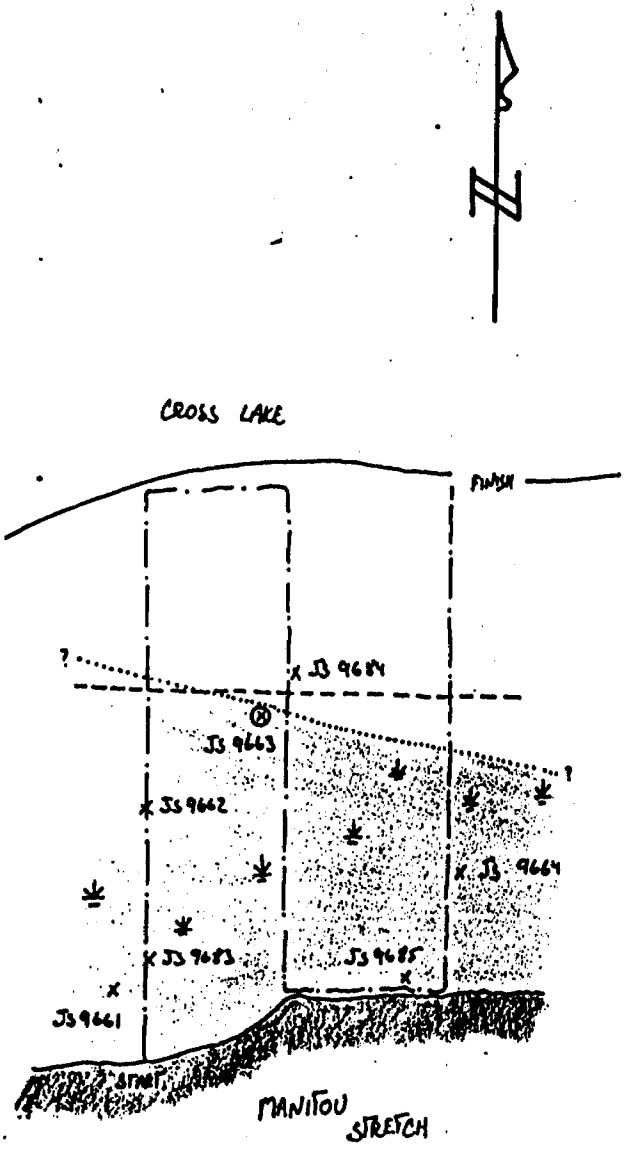
× JS 9647 Rock sample location ; number.

SHORELINE PROSPECTING
(MANITOU STRETCH - NORTH SHORE)
R. NIXON + S.T. JOHNSTON
JULY 1st, 1983
1:10,000



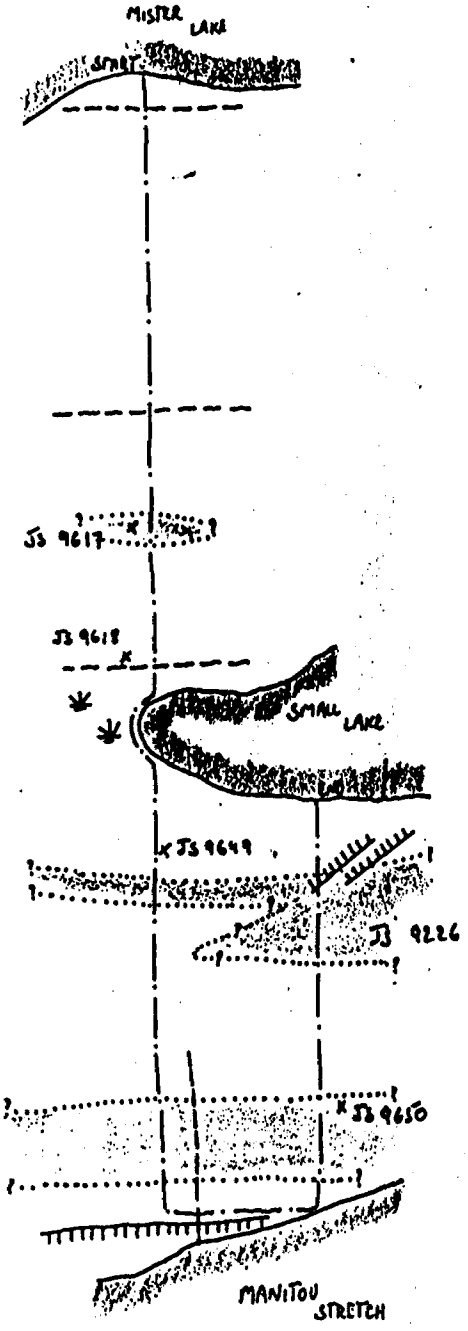
AREA OF SHEARING
LIMIT OF SHEARING
X SAMPLE LOCATION
JS 9614 SAMPLE NO.

TRAVERSE 27
O. SCOUTEN; R. NIXON
JULY 2ND, 1983
1:10,000



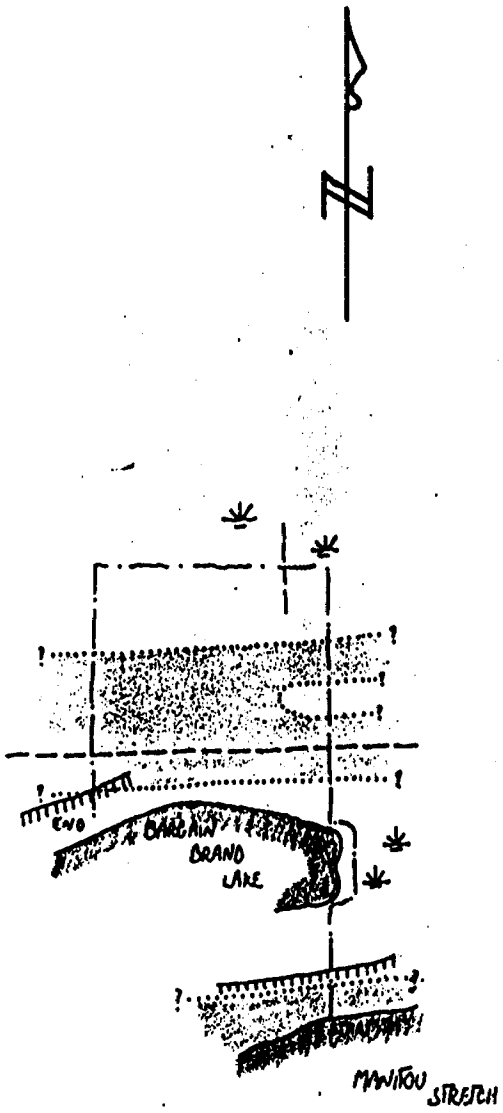
—·—·—	TRAVERSE
— — —	CLAIM LINE
⅄	SWAMP
?·····?	LIMIT OF SHEARING
▨	AREA OF SHEARING
×	SAMPLE LOCATION
⊗	FLOAT SAMPLE
JS 9662	SAMPLE NO.

TRAVERSE # 28
JULY 2nd, 1983
J. SCOUTEN + S.T. JOHNSTON
1: 10,000



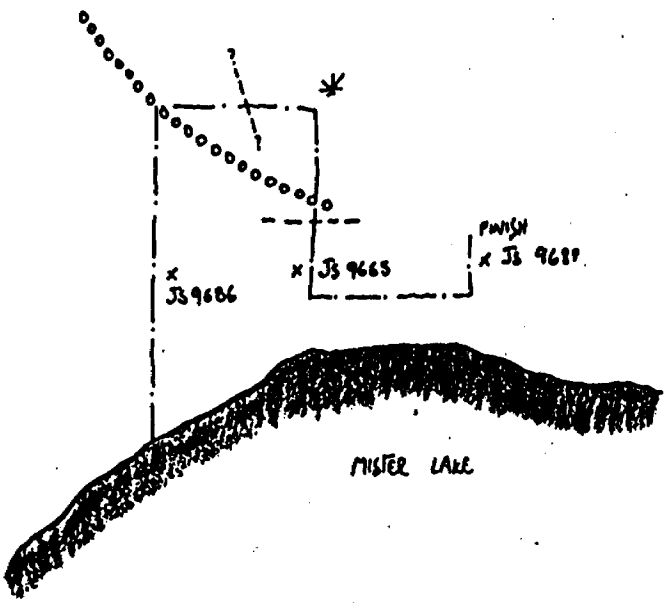
—·—·—	TRAVERSE ROUTE
— — —	CLAIM LINE
?·····?	LIMIT OF SHEARING
	AREA OF SHEARING
	ESCARPMENTS
	SWAMP
x	SAMPLE LOCATION
JS 9617	SAMPLE NO.

TRAVERSE #29
J. SCOTTEN + S.T. JOHNSTON
JULY 3RD, 1983
1:10,000



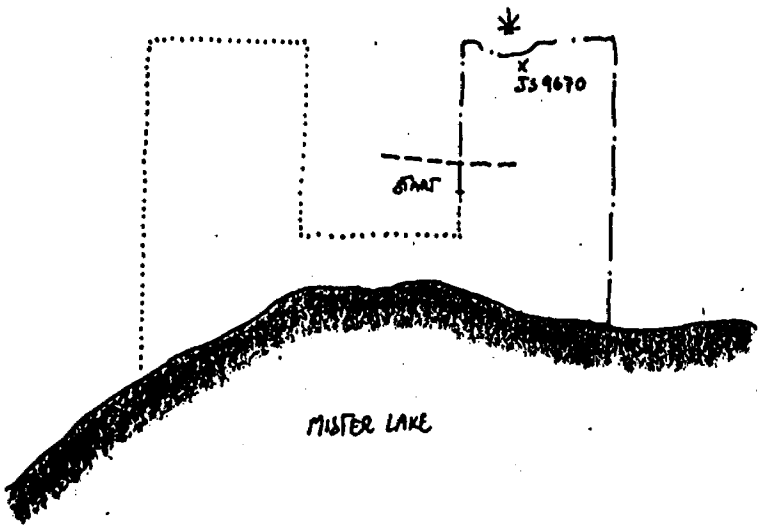
TRAVERSE ROUTE
CLAIM LINES
LIMIT OF SHEARING
AREA OF SHEARING
ESCARPMENT
SWAMP

TRAVERSE #30
R. NIXON; D. SCOTTEN
JULY 3rd, 1983
1:10,000



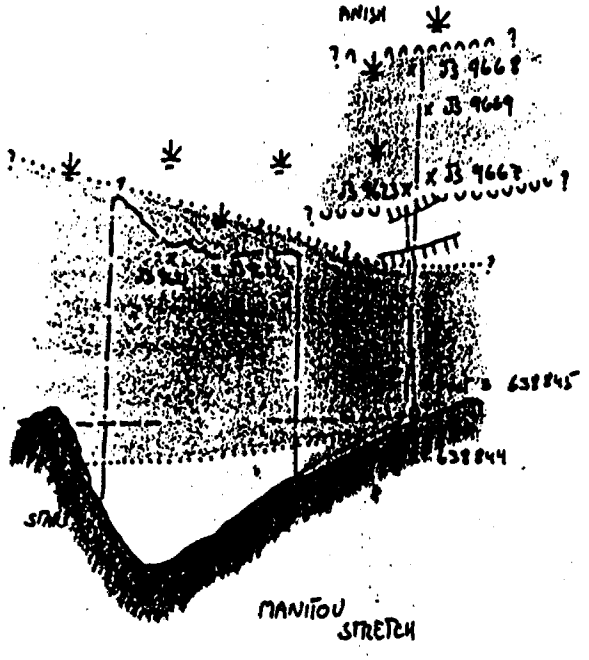
—·—·—	TRAVERSE
– – – –	CLAIM LINE
oooooo	PORTAGE
x	SAMPLE LOCATION
JS 9686	SAMPLE NO.
⁂	SWAMP

TRAVERSE 30 A
O. SCOUTEN ; S.T. JOHNSTON
JULY 6TH, 1983
1 : 10,000



—·—·—	TRAVERSE
·····	TRAVERSE 30 (3/7/83)
– – – –	CLAIM LINE
⩲	SWAMP
X	SAMPLE LOCATION
JS 9670	SAMPLE NUMBER

TRAVERSE 31
O. SCOUTEN ; S.T. JOHNSTON
JULY 5TH , 1983
1: 10,000

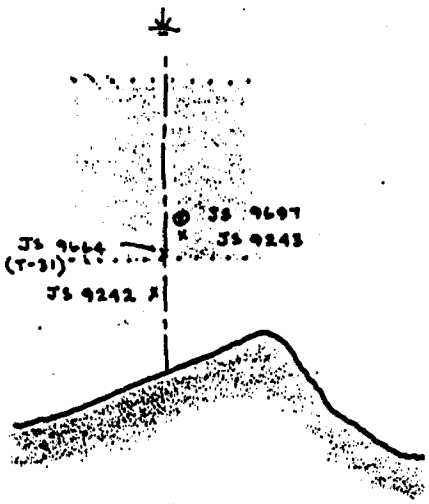


TRAVERSE
CLAIM LINE
CLAIM POST
LIMIT OF SHEARING
AREA OF SHEARING
LIMIT OF GOSSAN
AREA OF GOSSAN
ESCARPMENT
SWAMP
SAMPLE LOCATION
JJ 9666 SAMPLE NUMBER

TRAVERSE 31 A

J. Scouten ; R. Nixon
July 17, 1983
1:10,000

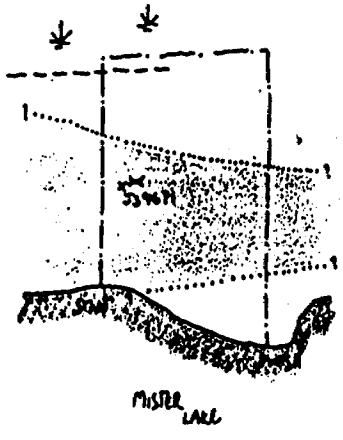
——·——·	Traverse route
x JS 9243	Rock sample location; number
⊕	Float
.....	Limit of shearing
⁘⁘⁘	Area of shearing

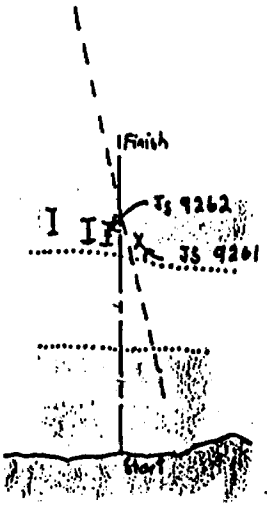


Manitou Stretch

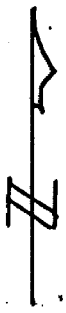
TRAVERSE NO. 32
D. SCOUTEN; S.T. JOHNSTON
JULY 6TH, 1983
1:10,000

—·—·—	TRAVERSE
- - - - -	CLAIM LINE
? ..... ?	LIMIT OF SHEARING
	AREA OF SHEARING
⋊	TRENCH SITE
⋕	SWAMP
x	SAMPLE LOCATION
JS 9681	SAMPLE NO.





Mister Lake



Traverse 32a.

R. Wilson; J. Scouten
July 21, 1983
1:10,000

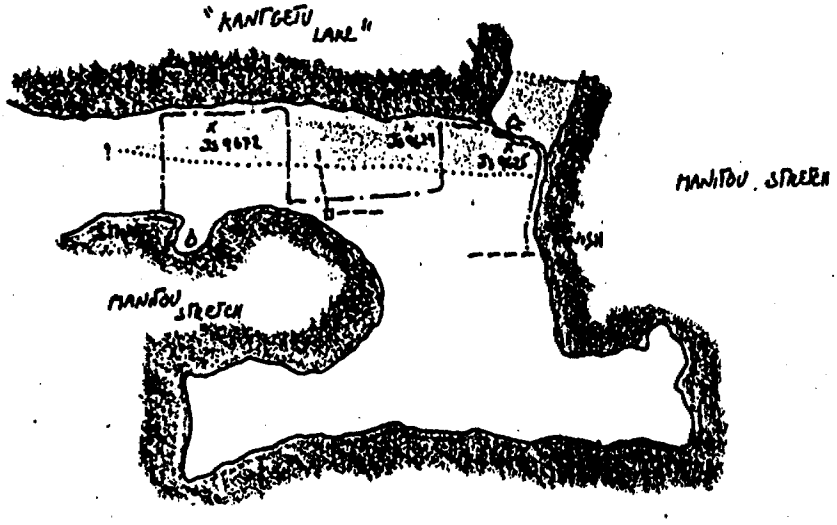
———	Traverse Route
x Ts 9262	Rock Sample Locations; Numbers
I	Trenches
⁘⁘⁘⁘	Area of Shearing
– – – –	Claim Line

TRAVERSE 33

D. SCOUTEN ; S.T. JOHNSTON

JULY 7TH, 1983

1 : 10,000



—·—·—	TRAVERSE
------	CLAIM LINE
▫	CLAIM POST
?.....?	LIMIT OF SHEARING
	AREA OF SHEARING
⅄	SAMPLE LOCATION
JS 9672	SAMPLE NO.
⌂	PILLOW LAVAS

TRAVERSE 34

O. SCOUTEN ; S.T. JOHNSTON

JULY 8TH, 1983

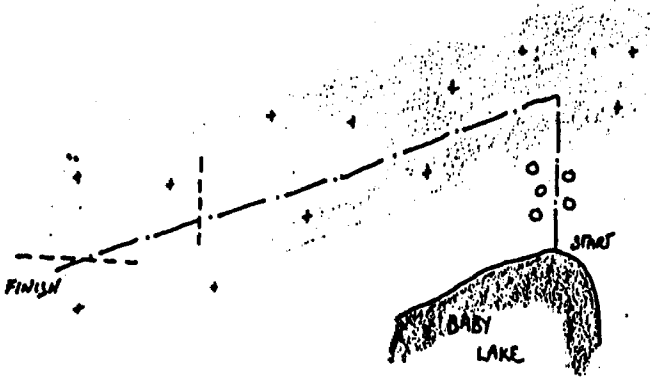
1: 10,000

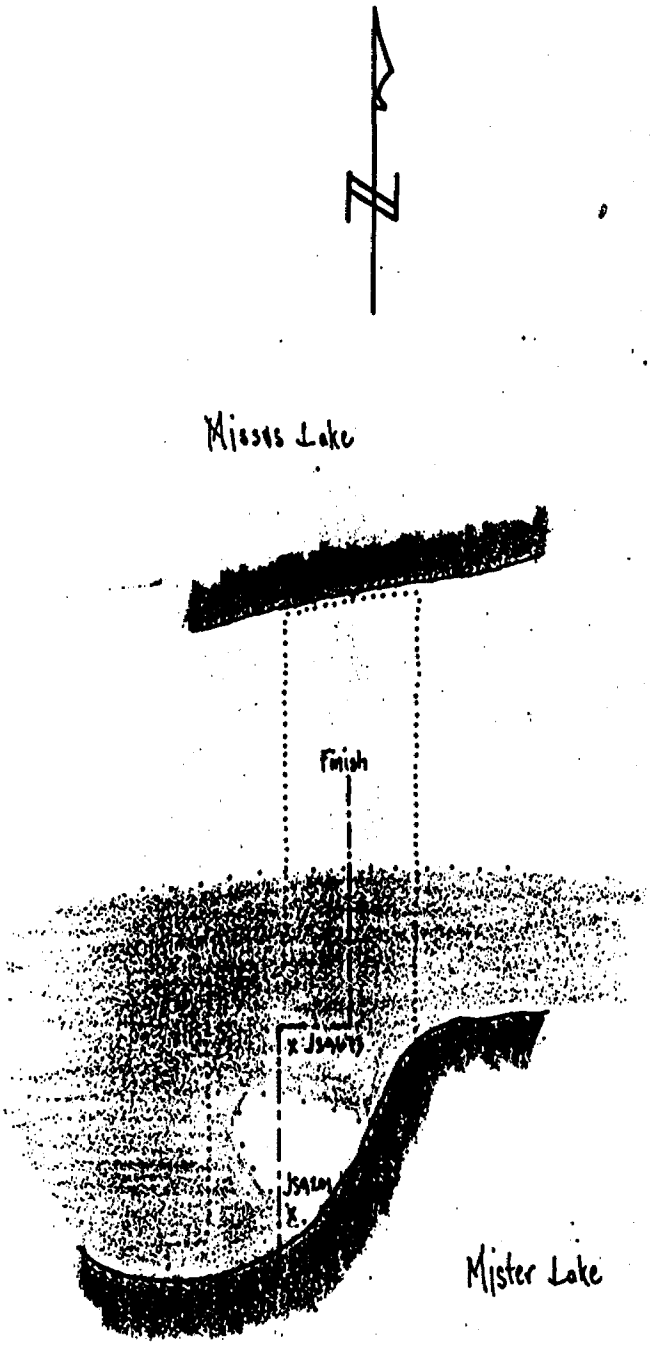
TRAVERSE

CLAIM LINE

BOULDER FIELD

OUTCROP





Traverse 35

S. Johnston; D. Scoular
July 9, 1983
1 : 10,000

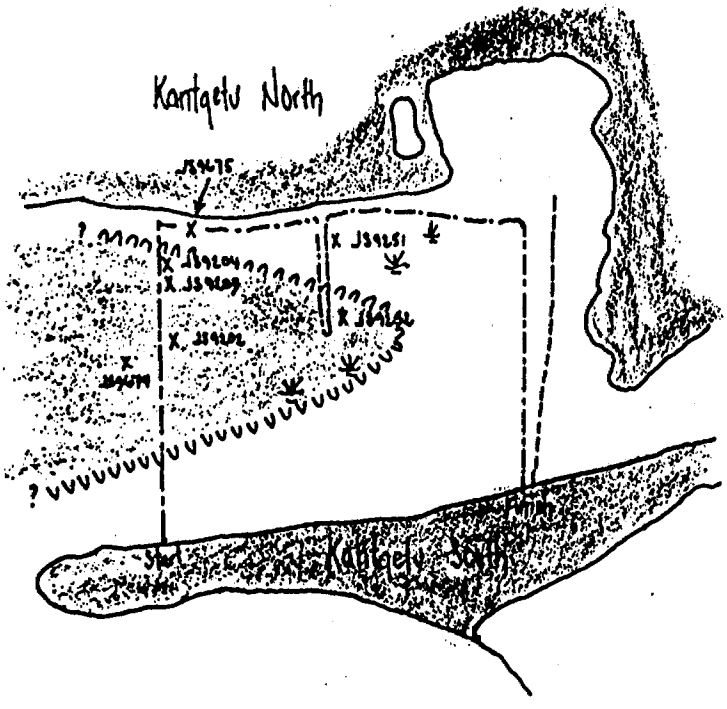
— · — · — Traverse Route
..... Traverse 12 (June 20, 1983)
x JS9201 Rock sample location; number
. . . . . Limit of shearing
▒▒▒▒ Area of shearing

Traverse 36

D. Scouten, S. Johnston

10 July, 1985

1:10,000



—·—·— Traverse

- - - - - - - - Claim line

?^^^^^^^^? Limit of gossan

Area of gossan

Swamp

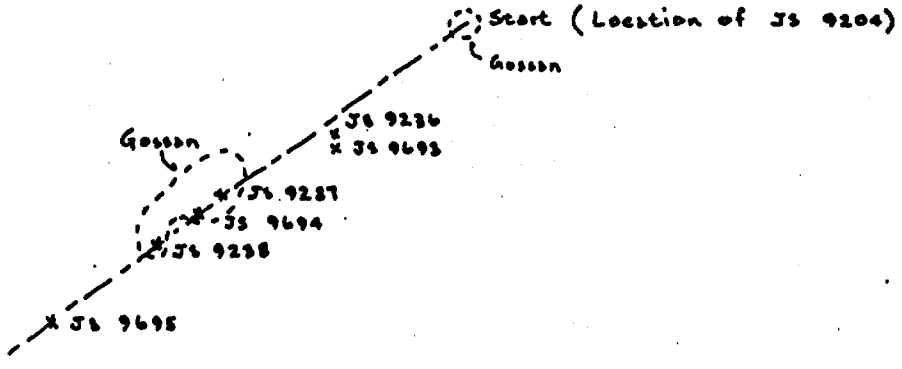
X Sample location

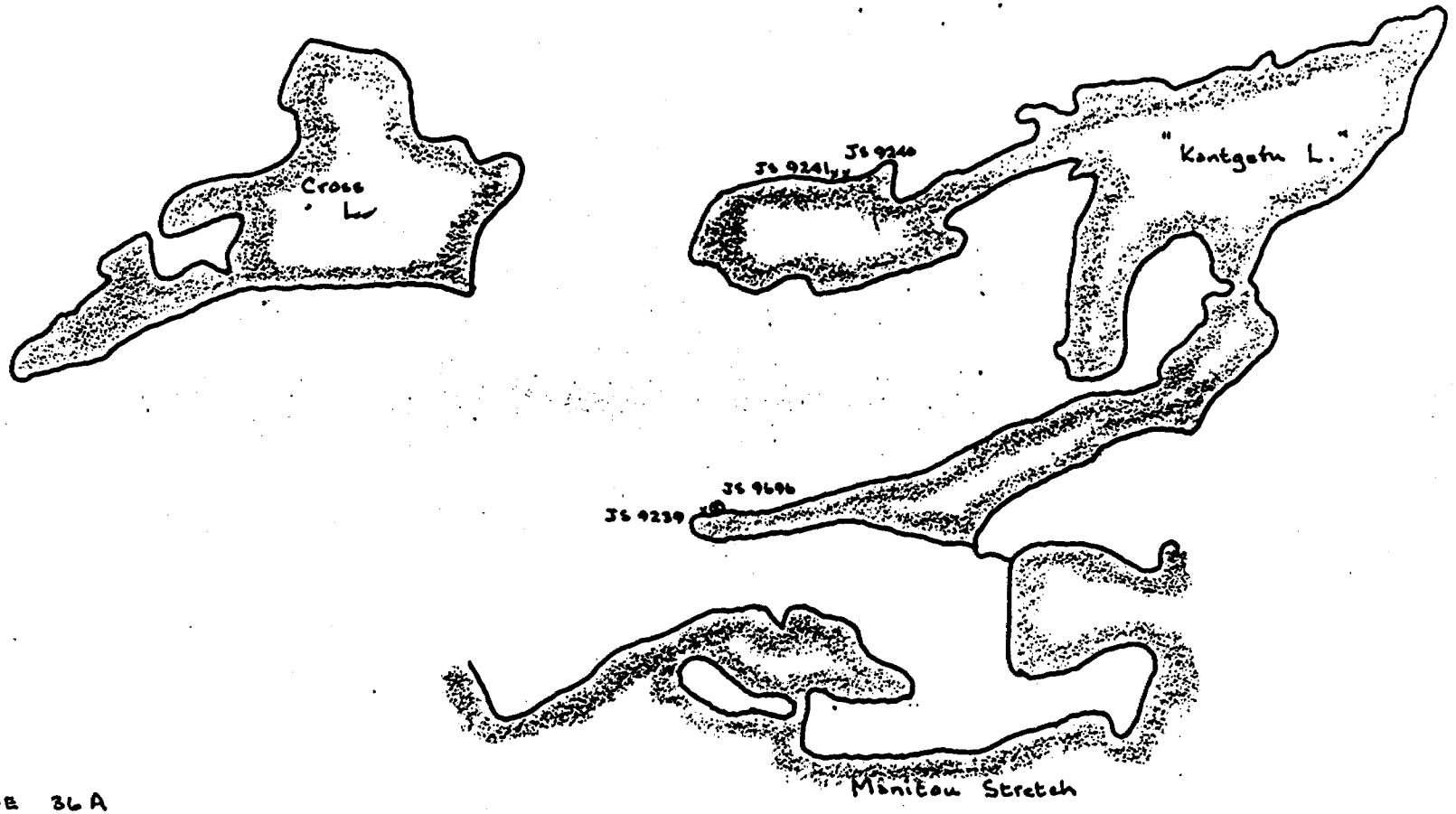
JS9674 Sample number

TRAVERSE 36A

J. Scouten ; R. Nixon
July 16, 1983
1 : 10,000

—·—·— Traverse route
x Js 9236 Rock sample location; number.

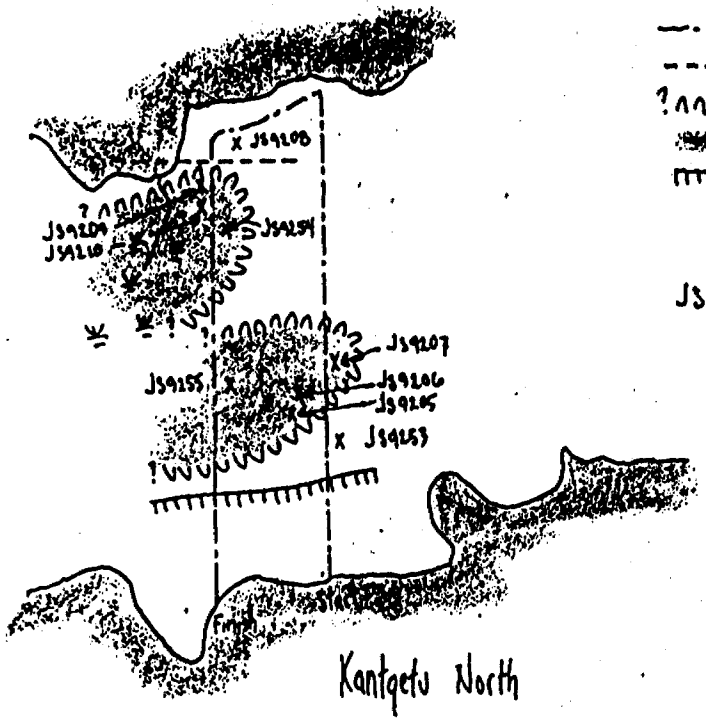




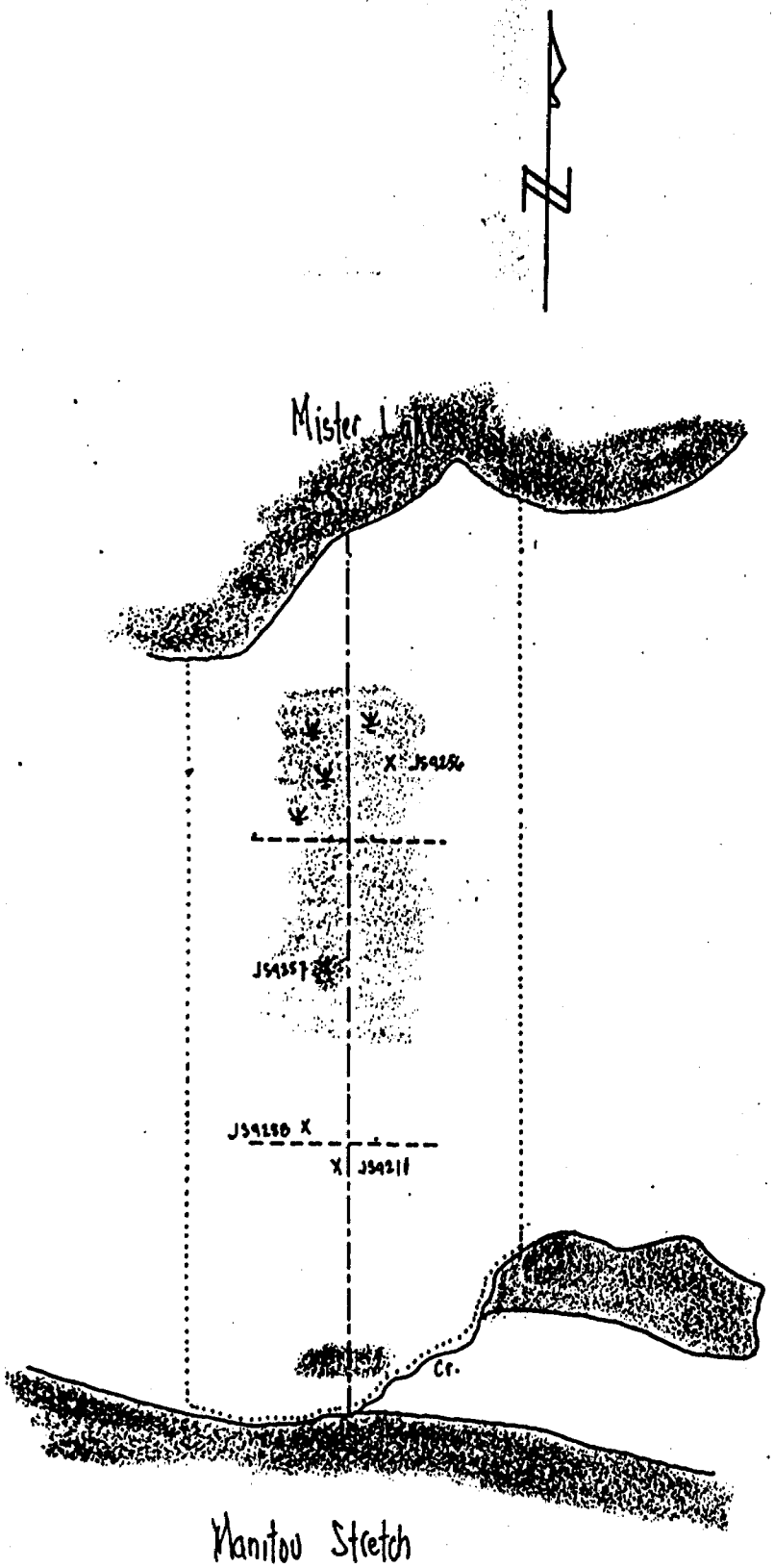
TRAVERSE 36A

1" = 1/4 mi.

Traverse 37
D. Scouten, S. Johnston
July 11, 1983
1:10,000



Traverse
Claim line
?^^^^^^? Limit of gossan
Area of gossan
Escarpment
Swamp
x Sample location
JS9253 Sample number



Traverse 38

D. Scouten, S. Johnston

July 12, 1983

1:10,000

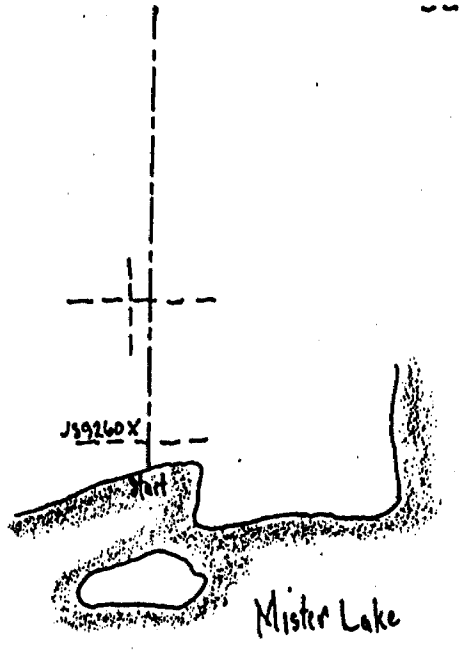
—·—·—·—	Traverse
----------	Claim line
.....	Traverse 4 (June 16, 1983)
~~	Area of shearing (approx.)
X	Sample location
JS9256	Sample number
~~	Area of gossan (approx.)
⸸	Swamp

Traverse 39

S. Johnston, D. Scoates
July 13, 1983
1 : 10,000

———— Traverse Route
x JS9260 Rock sample location & number

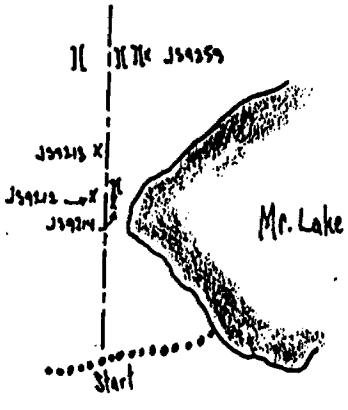
------ Claim line



Traverse 40

S. Johnston, D. Scoates
July 15, 1985
1 : 10,000

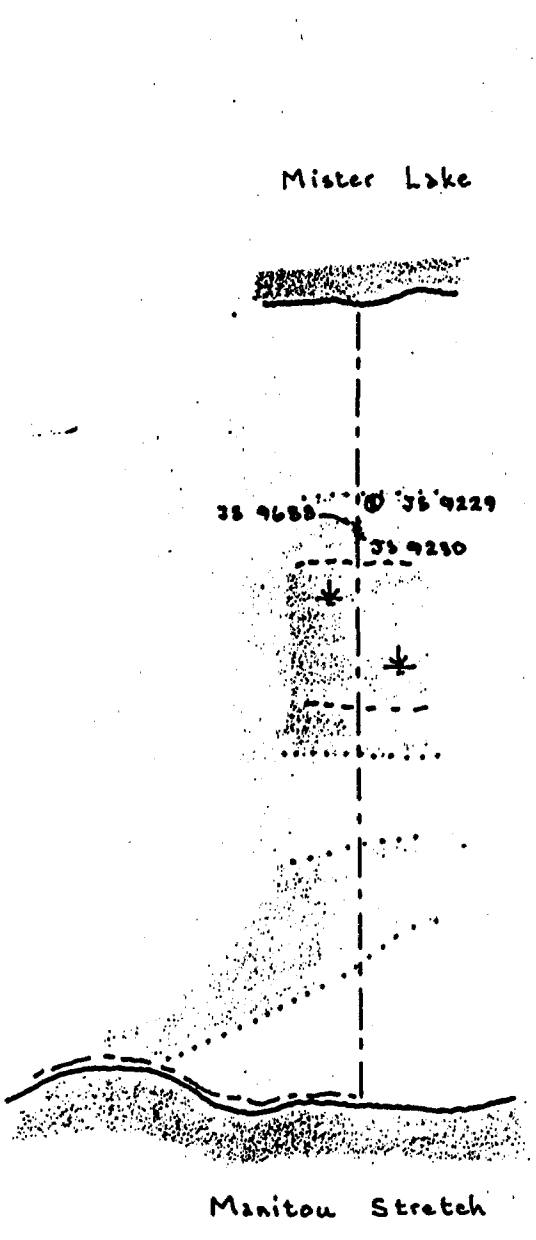
—·—·—	Traverse Route
x JS9213	Rock sample location & number
—— ——	Claim line
][	Trench
·····	Flagged line



TRAVERSE 41

D. Scouten ; S. Johnston
July 14 , 1983
1:10,000

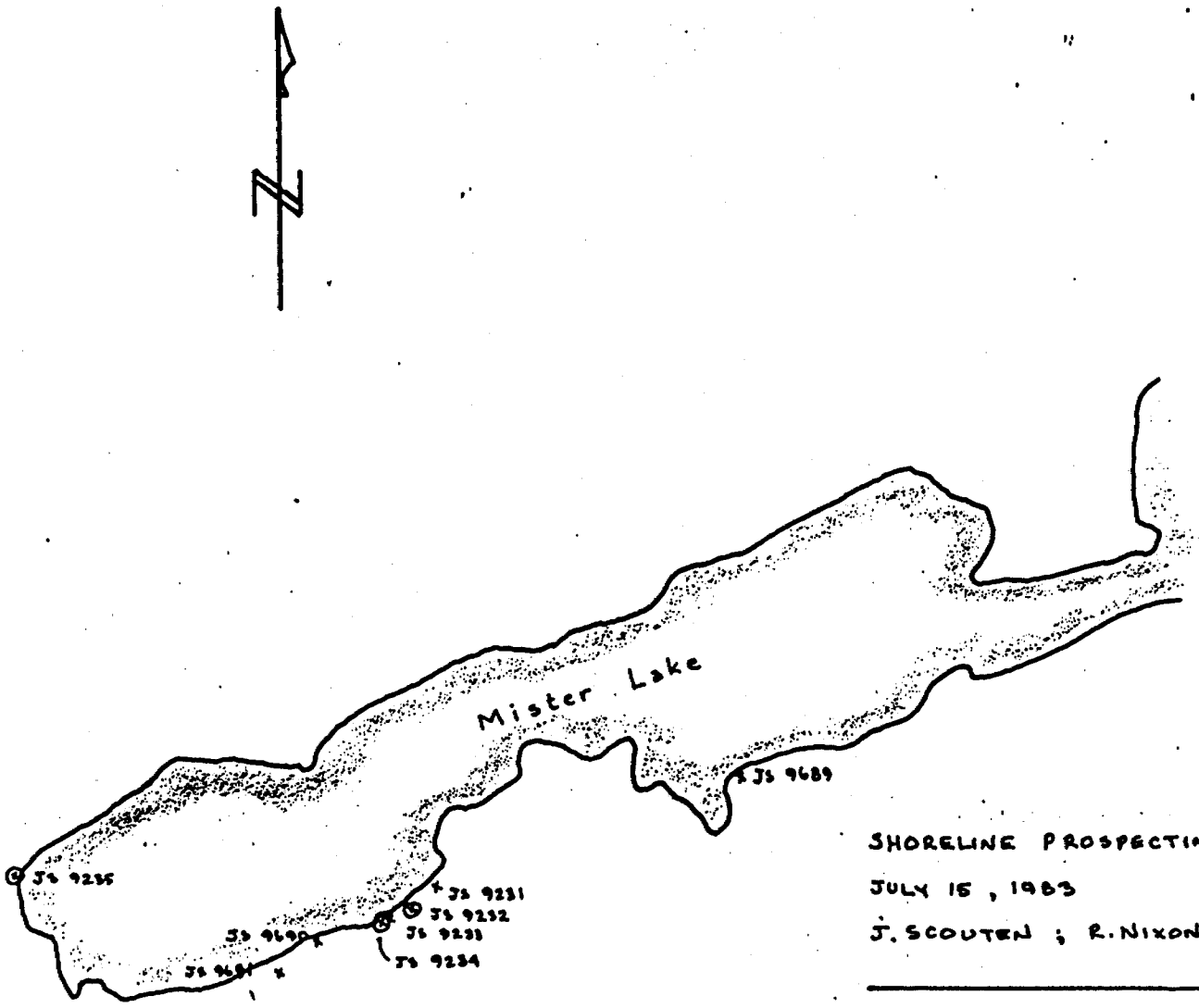
—·—·—	Traverse route
x JS 9215	Rock sample location number
.....	Limit of shearing
	Area of shearing



TRAVERSE 42

J. Scouten ; R. Nixon
July 14, 1983
1:10,000

——·——	Traverse Route
x JS 9229	Rock sample location ; number
.....	Limit of shearing
	Area of shearing
✱	Swamp.
⊙	Float



SHORELINE PROSPECTING (MISTER LAKE)

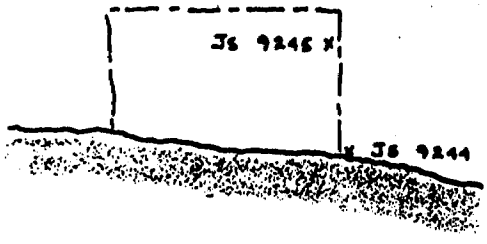
JULY 15, 1983

J. SCOUTEN ; R. NIXON

× Js 9691 Rock sample location ; number.

⊙ Float.

SCALE : 1" = 1/4 mi.



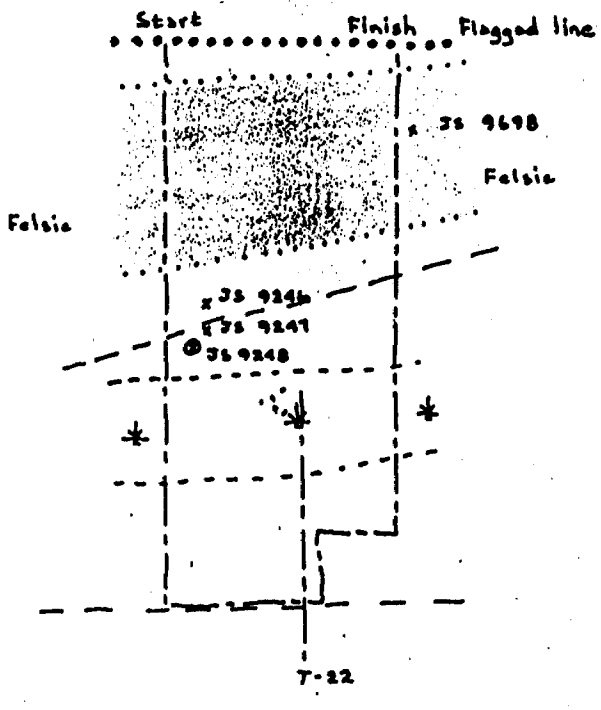
Manitou Stretch

TRAVERSE 43

J. Scouten ; R. Nixon
July 17, 1983
1 : 10,000

_ _ _ _ _ Traverse route

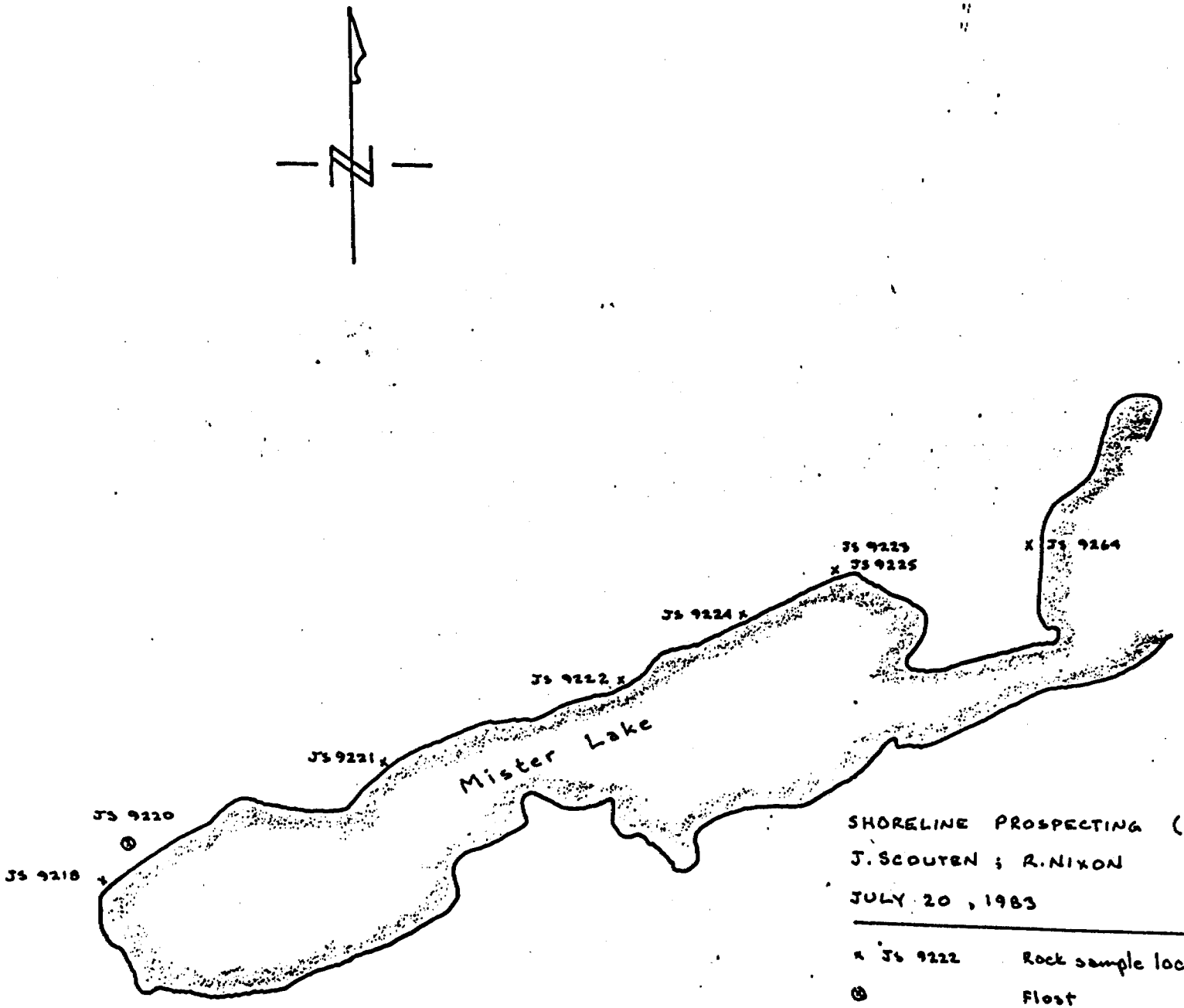
x Js 9244 Rock sample location; number



TRAVERSE 44

J. Scouten ; R. Nixon
July 18, 1983
1 : 10,000

——·——	Traverse route
x JS 9198	Rock sample locations; number
⊗	Float
— — — —	Claim line
.....	Limit of shearing
	Area of shearing
✱	Swamp



SHORELINE PROSPECTING (MISTER LAKE)

J. SCOUTEN ; R. NIXON

JULY 20 , 1983

---

x Js 9222 Rock sample location ; number.

⊕ Float

SCALE : 1" = 1/4 mi.

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
SECTION 4
ELECTROMAGNETIC SURVEY
and
MAGNETIC SURVEY
1983 EXPLORATION PROGRAM

Introduction

This section details the results of an electromagnetic and magnetic survey completed on the Straw Lake claim group of Sparton Resources Inc. between May 1983 and Dec. 1984. An attempt has been made to classify each anomaly and to arrange a priority of detailed follow-up exploration, where available, other information attained from concurrent prospecting, geological mapping, geochemistry and induced polarization surveys completed by Sparton Resources Inc., and previous exploration by other concerns is utilized in this assessment.

Electromagnetic Survey

Instrumentation The survey was performed with a Crone Radem V.L.F. Unit. This instrument is a one man E.M. unit utilizing low frequency radio waves from military transmitters. The name "VLF" is a misnomer because it utilizes frequencies up to to 60 times higher than other E.M. units. The Radem is capable of detecting anomalies of low conductivity such as disseminated sulphides. However, because of the high frequencies utilized lithological contacts, shear zones, topographic and bedrock highs and lows, wet swampy ground and other undesirables react similarly to bedrock conductors.

The transimitting station used was Cutler, Maine. The operating frequency changed during the course of the survey; work performed prior ro Jan. 1, 1984 was at 17.8 KHz. After Jan. 1, 1984 work was performed at 24.8 KHz. The increase in frequency has not significantly affected the responses.

Theory of Operation

The Radem is a radio receiver utilizing the radiation from powerful military transmitters as the primary signal. The radiation contains both magnetic and electrical components, however, only the magnetic component is of concern because the subsurface carries the bulk of the signal energy.

The polarized magnetic field is roughly the shape of an ellipsoid around the transmitter. The magnetic vector is approximately parallel to the ground surface.

A station in the same direction as the geological strike is chosen to give a maximum coupling with the conductor. The direction of the magnetic component of the transmitted field is horizontal and perpendicular to the geological strike.

The Radem measures the secondary field, generated by conducting bodies when they are subjected to the transmitted field. The measurement is in terms of dip angles. The point of inflection associated with a reversal in measured dip angles (crossovers) from the direction of traverse to the opposite direction usually occurs directly over the conductor.

Interpretation

Since the dip angles do not necessarily give an exact location of the conductor, a simple low-pass filter (Fraser filter) is used to improve interpretation.

Because of the ease of interpretation and realization of anomalies after Fraser Filtering all of the following comments refer to Fraser Filter anomalies.

Discussion of Results

A large number of VLF-EM anomalies have been detected. The majority of these anomalies are caused by conductive overburden, conductive lake sediments, and topography. However, many conductors are bedrock generated and require follow up. Tables 1 to 8 summarize the strength, strike length, trend magnetic association probable cause and recommended follow-up of every conductor.

Magnetic Survey

Instrumentation The survey was performed using a Scintrex MP-2 portable proton procession magnetometer. A Scintrex MBS-2 magnetic base station was used to record diurnal magnetic variations.

The MP-2 has an accuracy of $\pm$ 1 gamma in a field of 50,000 gammas. However, actual survey accuracy is proportional to the degree of care used in applying diurnal corrections. Accuracy should be kept within 10-15 gammas

Theory of Operation

Magnetic variations are caused by variations in magnetization of the rock from station to station. This magnetization exists because of the presence of minerals with high magnetic susceptability. The most common minerals to affect the earths magnetic field are, magnetite, pyrrhotite and ilmenite. Magnetometers are used to measure this variation.

The MP-2 is a proton precession magnetometer. This magnetometer utilizes the precession of spinning, protons in a volume of kerosene to measure the total magnetic intensity.

When the hydrocarbon is subjected to an electric current the spinning protons are temporarily polarized. When the current is removed the spin of the protons cause them to precess about the direction of the ambient magnetic field. The signal generated by the precessing protons is directly proportional to the intensity of the total magnetic field. The magnetic intensity measured is the magnitude of the earths field vector independent of its direction. A change in the total field intensity is referred to as an anomaly.

Interpretation

After making diurnal corrections, the value of the magnetic field is plotted at the read station. On the appendixed maps these values are contoured at 100 gamma intervals to provide easier analysis of variation.

TABLE 1 RESULTS OF VLF-EM SURVEY

ANOMALY #	VLF MAXIMUM (FRASER UNITS)	LENGTH (METRES)	TREND	MAG ASSOC.	GAMMAS	GEOLOGY	COMMENTS	FOLLOW-UP
1.1	10	≥ 300	NE-SW	No		Intermediate lapilli tuff	Against trend of Geology associated with ridge. Believed Topographic effect.	No
1.2	36	≥ 600	E-N	No		Swamp	Entirely within swamp	No
1.3	13	1000	E-W	No		Sericitized felsic tuffs	Very weak anomaly. Associated with wide zone of dissem pyrite indicated from drilling	Yes
1.4	2	100	E-W	No		Felsic tuffs with pyrite	May be associated with sulphide zone of 1.3	Yes
1.5 see (2.1)	59	≥ 1900	NW-SE			Felsic volcanic	In swamp from L-26w to L-14W. Flanking felsic tuff o/c from L-14w to L-10w. 2.1 had no I.P. response	No
1.7	46	700	E-W			Mafic-felsic contact	Should be covered by I.P. Survey	Yes
1.8	11	~ 200	E-W			Intermediate tuff	Anomaly is weak and is at base of ridge. Believed to be topographic	No
1.9	39	≥ 1000	E-W			–	Entirely within swamp. Probably conductive overburden	No
1.10	30	400	E-W			Felsic tuff, sericite and carbonate	Should be covered by I.P.	Yes
1.11	30	≤ 200	E-W			Near contact seds/porphyry	Should be covered by I.P.	Yes
1.12	20	1000	E-W	M 1.2		Mafic/felsic volcanic	May in part be conductive overburden (East of access road). Should be prospected west of access road	Yes

TABLE 1 cont.

ANOMALY #	VLF MAXIMUM (FRASER UNITS)	LENGTH (METRES)	TREND	MAG ASSOC.	GAMMAS	GEOLOGY	COMMENTS	FOLLOW-UP
1.13	37	$\leq$ 600	E-W			No exposure	Associated with Vigor Creek and graphitic shear zone drilled by Freeport Minerals (DDH #6). Represents Manitou-Straw Fault zone. May be equivalent to anomaly 2.2	No
1.14	29	500	E-W			No exposure	Entirely within swamp. Conductive overburden	No
1.15	33	500	E-W			No exposure	Conductive overburden - swamp	No
1.16	60	$\geq$ 1100	E-W			No exposure	Drilled by INCO in 1969 (#42727). Graphitic horizon in mafic volcanics	No
1.17							See anomaly 2.9	
1.18	61		~E-W			Intermediate felsic volcanic	Conductive overburden - Swamp from 19W-14W L-22W to L-19W. associated with intermediate to felsic volcanic. Cover with I.P. from L-23W to L-20W	Yes

TABLE 2

ANOMALY #	VLF MAXIMUM (FRASER UNITS)	LENGTH (METRES)	TREND	MAG ASSOC.	GAMMAS	GEOLOGY	COMMENTS	FOLLOW-UP
2.1	64	≥ 200	E-W	No		No outcrop	Strikes into Centre Lake may join 2.15. Conductive overburden. Same as 1.5	No
2.2	65	> 1700	E-W	Yes		Graphite	Drilled by Freeport Minerals (DDH#8) source graphite. Probably same horizon as 1.13. Manitou-Straw Fault	No
2.3	28	600	~E-W	No		Felsic tuff	Covered by I.P. survey. No response Topographic anomaly	No
2.4	31	300	E-W	No		No outcrop	Conductive overburden - Swamp covered by I.P. No response	No
2.5	20	200	~E-W	No		No outcrop.	Conductive overburden. No response from I.P. survey	No
2.6	14	1000	~E-W	No		No outcrop	No response from I.P. survey	No
2.7	10	300	~E-W	No		No outcrop	No response from I.P. survey	No
2.8	50	700	E-W	No		No outcrop	No response from I.P. survey	No
2.9	36		E-W	Yes		Sericite schist, felsic tuff (sed)	Extends onto sheet #1 (1.20) and onto sheet #3. Drilled at L-4W intersected sulphide zone in intermediate volcanic. An I.P. survey indicates a higher anomolous zone at L 5E to L 10E. Drilling is recommended to further test this anomaly	Yes
2.10	36	250	NE-SW	No		No outcrop	Covered by I.P. Survey. No response. Conductive overburden	No
2.11	55	400	E-W	No		Felsic tuff	Should be covered by I.P. survey	Yes

TABLE 2 cont.

ANOMALY #	VLF MAXIMUM (FRASER UNITS)	LENGTH (METRES)	TREND	MAG ASSOC.	GAMMAS	GEOLOGY	COMMENTS	FOLLOW-UP
2.12	40	≥ 400	E-W			No outcrop	Associated with Vigor Creek and Swamp. Equivalent to 1.14	No
2.13	25	≥ 500	S-E			No outcrop	Associated with mafic to intermediate volcanic. Should be prospected and/or covered by I.P.	Yes
2.14	44	700	E-W			No outcrop	Probably within feldspar porphyry unit. Anomaly entirely in swamp. No response to I.P. survey	No
2.15	20	~ 200	E-W			No outcrop	No response to I.P. survey. Strikes into Centre Lake. May be same as 2.1 Conductive Overburden	No
2.16	14	200	E-W			No outcrop	Probably overburden conductor. Strikes into Rick Lake	No
2.17	60	≤ 100	-			No outcrop	Only one line over conductor. Strikes into Vigor Lake. May be equal to 2.12 and 1.4	No

TABLE 3

ANOMALY #	VLF MAXIMUM (FRASER UNITS)	LENGTH (METRES)	TREND	MAG ASSOC.	GAMMAS	GEOLOGY	COMMENTS	FOLLOW-UP
3.1	27	450	E-W			No outcrop	Strongest section on anomaly in swamp. No exposure on west end	No
3.2	31	800	NE-SW			No outcrop	Follows in creek that is on east end of Floyd Lake. Nature of Lake anomaly indicates lake effect . Conductive lake seds	No
3.3	54	$\geq$ 800	E-W			In Lake	Central to Floyd Lake. Anomaly weakens near shore and island in lake suggesting conductive lake seds	No
3.4	31	$\geq$ 100	-			No outcrop	Covered by only one line-strikes into Lake on its west end. Open to east. May be topographic or lake effect. However, should be prospected.	Yes
3.5	26	$\geq$ 250	E-W			No outcrop	Entirely in swamp - Conductive overburden	No
3.6	21	200	E-W			No outcrop	" " - "	No
3.9							Same as 2.9. The increase in strength and width of the anomaly at the NE end of Rick Lake is probably conductive overburden.	
3.10	28	$\geq$ 1100	North of E-W			Felsic tuff	Requires I.P. from L 20E to L 32E VLEM between L 7E and L 24E would distinguish multiple conductors The anomaly strength may be exaggerated by conductive overburden. Possibly equivalent to 3.9.	Yes

ANOMALY #	VLF MAXIMUM (FRASER UNITS)	LENGTH (METRES)	TREND	MAG ASSOC.	GAMMAS	GEOLOGY	COMMENTS	FOLLOW-UP
3.11	45	≥ 1000	~ E-W			Felsic tuff	May be equivalent to 3.9. VLEM and/or IP needed to distinguish 3.9-3.10-3.11	Yes
3.12	73	1500	E-W			Felsic Intermediate tuffs	Strikes onto sheet #4 and into Paleo Lake. Partly follows along creek and swamp. Has a direct correlation with I.P. anomaly at L22E Strip area with coincident IP/VLF. Because I.P. may not have penetrated overburden, do VLEM on every line of anomaly to verify conductor. Mod.-strong humus anomaly at L-29E	Yes
3.13	78	≥ 1400	E-W			Int. tuff at L21W + L22W	Strikes into Paleo Lake and Sheet #4. Covered by I.P. survey strong response on L20E and L32E moderate to zero response between. Anomaly flanking on a strong IP to the south from L19E to L26E. Length of cond. in swamp except L21-22E where coincident with intermediate tuff. Equivalent to 2.2; Manitou-Straw fault zone.	Yes
3.14	30	450	E-W			No outcrop	Entirely in swamp. Conductive overburden.	No
3.15	58	≥ 1300	NE-SW & NW-SE				Covered by swamp from L12E to L18E. L18E to L25E associated with mafic volcanic. I.P. coverage from L19E to L25W. Good response only at L25E. Soil anomaly at L24E. Drill/strip.	Yes
3.16	39	350	E-W			No outcrop	Entirely within swamp. Covered by I.P. survey. No response.	No
3.17	27	450	~E-W			No outcrop	Covered by swamp. I.P. survey shows response at L-20E. Strip/Prospect.	Yes

TABLE 3 cont.

ANOMALY #	VLF MAXIMUM (FRASER UNITS)	LENGTH (METRES)	TREND	MAG ASSOC.	GAMMAS	GEOLOGY	COMMENTS	FOLLOW-UP
3.18	60	≥ 700	NE-SW			No outcrop	Swamp covered. No response to I.P. survey.	No
3.19	24	≥ 200	NE-SW			No outcrop	Swamp covered. No response to I.P. survey.	No
3.20	79	≥ 900	NW-SE			Int. volc. and seds	Crosses geological trend. Mainly in swamp and low ground. Conductive overburden.	No

ANOMALY #	VLF MAXIMUM (FRASER UNITS)	LENGTH (METRES)	TREND	MAG ASSOC.	GAMMAS	GEOLOGY	COMMENTS	FOLLOW-UP
4.4	58	1400	NE-SW			Lake	Lake conductive zone. Extends from L-28E to L-55E. Strongest in the lake weakens at both E-W ends of lake. Anomalies weak towards shores and wrap around islands indicating source is conductive lake sediments.	No
4.2	57	$\geq$ 500	NE-SW			Not mapped	This is the western "on land" continuation of the Missus Lake Conductive Zone. Probably conductive overburden or topographically controlled.	No
4.3	50	$\geq$ 800	NE-SW			Not mapped	Strikes into Missus Lake and continues within the Missus Lake conductive zone. Probably not related to bedrock.	No
4.20	71	1200	E-W			Not mapped	Strongest section of anomaly between L-47E and L-53E should be prospected to determine source.	Yes
4.5	12	600	NE-SW			Not mapped	Very weak anomaly. Probably not bedrock conductor. However, requires a low priority follow up.	Yes
4.10	41	400				Not mapped	See 3.10	
4.11	32	800	E-W			Not mapped	Strikes into Mister Lake may be same as 3.11 should be prospected.	Yes
4.6	17	$\geq$ 600	NE-SW			Not mapped	Very weak set of anomalies. Probably not related to bedrock.	No

ANOMALY #	MAXIMUM (FRASER UNITS)	LENGTH (METRES)	TREND	MAG ASSOC.	GAMMAS	GEOLOGY	COMMENTS	FOLLOW-UP
4.13	80	≥ 1800	E-W			Not mapped	Continuation of 3.13 - Manitou-Straw shear zone. Anomaly strikes into the Manitou Stretch. Prospecting and sampling along trend of anomaly is recommended.	Yes
4.7	40	350	NE-SW			Not mapped	Short strike length should be prospected to determine source.	Yes
4.18	53	900	NE-SW			Not mapped	Same as 3.18. However, should be prospected between L-35E and 40E.	Yes
4.19	53	≥ 1000	NE-SW			Not mapped	Same as 3.19. However, should be verified in field as bedrock.	Yes
4.8	79	≥ 600	NE-SW			Not mapped	Strong conductor may reflect graphitic horizon in seds. Strikes into Manitou Stretch should be prospected.	Yes

TABLE 7 (West Grid)

ANOMALY #	VLF MAXIMUM (FRASER UNITS)	LENGTH (METRES)	TREND	MAG ASSOC.	GAMMAS	GEOLOGY	COMMENTS	FOLLOW-UP
W-1	36	≥ 250	NE-SW	No	-	No exposure	Check geology	Yes
W-2	71	500	E-W	No	-	No exposure	Check geology	Yes
W-3	16	200	NE-SW	Yes	1000	No exposure	Probably magnetite I.F.	Yes
W-4	24	600	E-W	Yes	500	No exposure	Prospect east end of anomaly	Yes
W-5	12	200	E-W	No	-	No exposure	Conductive overburden	No
W-6	43	≤ 100	-	No	-	Felsic volcanic	Prospect	Yes
W-7	106	≥ 1900	NE-SW	No	-	No exposure	Graphite horizon	No
W-8	83	≥ 1900	NE-SW	Yes	Low	No exposure	Trace of Manitou-Straw	No
W-9	20	≥ 100	-	No	-	No exposure		
W-10	78	≥ 100	-	No	-	Interim to felsic tuffs	Prospect	Yes
W-11	23	100	-	No	-	No exposure	Conductive overburden	No
W-12	18	100	-	No	-	No exposure	Conductive overburden	No
W-13	20	100	-	No	-	No exposure	Conductive overburden	No
W-14	44	≥ 900	E-W	Yes	500	Mafic and felsic tuffs	Probably graphite ± py, Prospect	Yes

Results of Magnetometer Survey

TABLE 9

D = Direct
F = Flanking

Anomaly	Gammas	VLF-Assoc.	GEOLOGY	Comments
M 1.1	≤ 1000	F 1.15; 1.16	Mafic and intermed tuffs . Pyrite and magnetite in intermediate tuffs.	May represent band of I.F. within the volcanics.
M 1.2	1200	D 1.13	Felsic tuffs-disseminated sulphides.	Probable po rich zone in the felsic tuffs
M 1.3	≤ 900	No	No exposure	May be within felsic volcanic unit
M 1.4	≤ 1400	F 1.7; F 1.5	Mafic tuffs and flow.	Magnetite rich band.
M 1.5	500	No	Felsic Lapilli tuffs	May indicate pod of magnetite I.F.
M 1.6	≤ 500	No	Tuffaceous metaseds with magnetite .	Band of lean I.F.
M 1.7	600	D 1.4	In swamp	-
M 1.8	300	D. 1.18	No exposure	Maybe within sericitic felsic volcanic.

TABLE 10

D = Direct
F = Flanking

Anomaly	Gammas	VLF-Assoc.	GEOLOGY	Comments
M 2.1	≤ 500	D 2.9	Felsic tuffs, sericite schist visable pyrite mineralization.	Probable po in the py.
M 2.2	300	D 2.8	No exposure	Probably in felsic volcanic
M 2.3	250	F. 2.8	Sericitic felsic tuffs.	poss. = 2.1
M 2.4	200	No	Sericite schist	Maybe same source as 2.3.
M 2.5	≤ 800	No	Mafic-intermediate volcanic py - hematite-sericite	Mag.and/or po associated with py.
M 2.6	900	No	On strike with cherty seds. py-hem.	Possible zone of I.F. in seds.
M 2.7	500	No	No o/c	Possible mafic/felsic content
M 2.8	300	F 2.2	Flanking conductor drilled by Freeport (graphite)	Probably po in graphitic zone.
M 2.9	400	No	No o/c	
M 2.10	150	No	f.g. sediment with hematite.	Hematite may be from magnetite.

TABLE 11

D = Direct
F = Flanking

Anomaly	Gammas	VLF-Assoc.	GEOLOGY	Comments
3.1	800	No	Granite - Granodiorite Mafic volcanic.	Magnetite concentration near granitic contact.
3.2	900	No	Granite - volcanic contact	Magnetite concentration at granite contact.
3.3	450	No	No exposure	-
3.4	425	No	Sericitized felsic tuff - py	Poss. po. associate with py.
3.5	300	No	Sericite felsic-interm. tuff - hematite.	Probable mag. altering to hematite.
3.6	$\leq$ 600	No	Felsic tuff - disseminated sulphides and magnetite.	May delineate zone of lean I.F./Sed.
3.7	500	F weak	Felsic + mafic tuff with disseminated sulphides.	Probably same horizon as M 3.6.
3.8	550	F 3.13	Mafic volcanic	-
3.9	350	F 3.13	Siltstone/Argillite	-
3.10	300	F 3.13	West end - Siltstone / argillite. East end - intermediate to mafic volcanic.	East end geology should be checked.
3.11	500	D 4.18	No exposure - proximal to interim to mafic tuffs,	-
3.12	250	F 3.17; 3.20	Mafic volcanic / Siltstone	-
3.13	300	No	Mafic volcanic - Intermediate tuff with disseminated sulphide	Possible po in disseminated sulphide zone.

TABLE 12

D = Direct
F = Flanking

Anomaly	Gammas	VLF-Assoc.	GEOLOGY	Comments
M 4.1	850	No	Not mapped	-
M 4.2	400	No	Not mapped	-
M 4.3	400	F 4.10	Not mapped	Defines strat. zone. Probably same as M 4.6.
M 4.4	200	No	Not mapped	-
M 4.5	300	No	Not mapped	-
M 4.6	200	No	Not mapped	-
M 4.7	$\leq$ 700	D 4.5	Not mapped	1400 m length. May be two parallel mag. zones.
M 4.8	$\leq$ 150	No	Not mapped	$\leq$ 1000 m length. Weak stratigraphic mag zone.
M 4.9	150	F 4.11	Not mapped	-
M 4.10	200	No	Not mapped	-
M 4.11	800	No	Not mapped	-
M 4.12	$\leq$ 750	No	Not mapped	900 m length good stratigraphic marker.
M 4.13	800	No	Not mapped	F M 4.12
M 4.14	750	F 4.7	Not mapped	< 1700 m. May represent band of magnetite rich seds or tuffs.
M 4.15	600	F 4.7	Not mapped	-
M 4.16	550	No	Not mapped	-
M 4.17	400	No	Not mapped	-
M 4.18	600	D 4.8	Not mapped	3 mag. highs coincident with 4.8 probably po assoc. with graphite.
M 4.19	950	No	Not mapped	-
M 4.20	600	No	Not mapped	700 m stratigraphic anomaly.
M 4.21	Depression	D 4.13	Not mapped	Series of mag lows along trace of Manitou-Straw Fault Zone

TABLE 12

D = Direct
F = Flanking

Anomaly	Gammas	VLF-Assoc.	GEOLOGY	Comments
M 4.22	200	D 4.11	Not mapped	
M 4.23	$\leq$ 100	D 4.19	Not mapped	900 m length, weak but coincident along 4.19 for 900 m.

TABLE 13

D = Direct
F = Flanking

Anomaly	Gammas	VLF-Assoc.	GEOLOGY	Comments
M 5.1	350	No	Not mapped	1200 m length. Stratigraphic magnetic anomaly. May be equivalent to M5.25.
M 5.2	300	No	Not mapped	600 m. Maybe same horizon as M5.30
M 5.4	250	No	Not mapped	–
M 5.5	≤ 200	No	Not mapped	3 separate anomalies that probably occur along the same horizon.
M 5.6	≤ 750	No	Not mapped	1500 m. along south shor of Mister Lake strongly magnetic horizon. May be equivalent to 5.7.
M 5.7	1000	No	Not mapped	–
M 5.8	250	No	Not mapped	–
M 5.9	700	D 5.8; F 5.8	Not mapped	Zone of mag anomalies. May be two closely spaced parallel mag. horizons.
M 5.10	700	No	Not mapped	
M 5.11	900	No	Not mapped	Narrow stratigraphic mag horizon may be same horizon as M 4.16
M 5.12	400	No	Not mapped	–
M 5.13	950	D 5.9; F 5.8	Not mapped	–
M 5.14	350	No	Not mapped	–
M 5.15	400	No	Not mapped	–
M 5.16	1200	No	Not mapped	–
M 5.17	450	No	Not mapped	–
M 5.18	600	No	Not mapped	May be some horizon as M5.23 and M5.28.
M 5.19	550	F 5.11	Not mapped	–
M 5.20	800	No	Not mapped	–

TABLE 13

D = Direct
F = Flanking

Anomaly	Gammas	VLF-Assoc.	GEOLOGY	Comments
M 5.21	2000	No	Not mapped	–
M 5.22	350	No	Not mapped	May be same horizon as M 5.18
M 5.23	1100	F 5.16	Not mapped	See M 5.18
M 5.24	600	No	Not mapped	–
M 5.25	≤ 200	No	Not mapped	–
M 5.26	200	No	Not mapped	-
M 5.27	200	No	Not mapped	–
M 5.28	550	No	Not mapped	See M 5.18
M 5.29	1000	F. 5.10	Not mapped	May be same horizon as M 5.14 and M 5.12.
M 5.30	350	No	Not mapped	–
M 5.31	450	No	Not mapped	See M 5.18

TABLE 14

D = Direct
F = Flanking

Anomaly	Gammas	VLF-Assoc.	GEOLOGY	Comments
6.1	700	No	Not mapped	–
6.2	200	Weak	Not mapped	–
6.3	400	No	Not mapped	–
6.4	700	No	Not mapped	–
6.5	150	No	Not mapped	Weak 800 m anomaly.
6.6	≤ 300	No	Not mapped	1600 m moderate to strong narrow zone possibly lithologic or lean I.F.
6.7	600	F 6.13	Not mapped	700m strong narrow anomaly may be band if I.F.
6.8	400	No	Not mapped	Strong narrow anomal may be band of I.F.
6.9	250	No	Not mapped	–
6.10	350	No	Not mapped	–
6.11	350	No	Not mapped	–
6.12	800	F.D. 6.3	Not mapped	–
6.13	≤ 300	D 6.4	Noy mapped	–
6.14	≤ 1100	No	Not mapped	Interpreted up to 1800 m length strong anomaly. Appears offset by fault at L-86E - 87E.
6.15	400	F.D. 6.11	Not mapped	–
6.16	350		Not mapped	–
6.17	500	No	Not mapped	Possably two closely spaced parallel zone
6.18	600	D 6.9	Not mapped	–
6.19	275	D 6.8	Not mapped	–
6.20	400	No	Not mapped	–

TABLE 14

D = Direct
F = Flanking

Anomaly	Gammas	VLF-Assoc.	GEOLOGY	Comments
6.21	800	No	Not mapped	–
6.22	200	D 5.13	Not mapped	–
6.23	700	No	Not mapped	–
6.24	500	No	Not mapped	–
6.25	300	No	Not mapped	–
6.26	300	D 6.7; 6.6	Not mapped	–
6.27	400	F. 13	Not mapped	-

TABLE 15 (West Grid)

D = Direct
F = Flanking

Anomaly	Gammas	VLF-Assoc.	GEOLOGY	Comments
M-W1	2000	F Wa	Mafic-intermediate volcanic	Geology should be re-examined
M-W2	1300	F W-3	Mafic volcanic ?	Probable band of I.F. May be some horizon as M-W5
M-W3	550	D W-4	Mafic volcanic ?	
M-W4	600	No	Intermediate volcanic	
M-W5	1350	No	Mafic volcanic	May be fault offset of M-W2
	A magnetic low extending from L-8W to L-3W is directly associated with anomaly W-10. Probably represents trace of Manitou-Straw Fault Zone.			

TABLE 16 (East Grid)

D = Direct
F = Flanking

Anomaly	Gammas	VLF-Assoc.	GEOLOGY	Comments
		NO MAGNETIC ANOMALIES ON THIS SHEET.		

Discussion of Results

Tables 9 to 16 summarize the strength, VLF-EM association, and geology of each magnetic anomaly. The table also includes general comments on many of the magnetic anomalies.

Conclusions

Both surveys have been successful in delimenating numerous anomalies that require more detailed follow-up.

Recommendations

Recommendations for further follow-up work are detailed in Tables 1 to 16.

SPARTON RESOURCES INC.

STRAW LAKE PROJECT

SECTION 5

GEOCHEMICAL SURVEYS

1983 EXPLORATION PROGRAM

GEOCHEMICAL SURVEYS

A soil geochemistry survey and an organic (humus) geochemical survey have been completed on the Straw Lake property.

Samples were taken,where possable,at 25m intervals on grid lines spaced at 100m.It was endeavoured to collect soil samples at each station,however, because of abundant low-lying often swampy ground,and an erratically developed soil profile,soil was not always available.At stations with no soil development,organic (humus) samples were collected.

Sampling was attempted at 3631 grid stations.From this 1809 soil samples (49.8%) and 1610 humus samples (44.3%) were collected.A combined sample coverage of 94.1% was realized.

SOIL SURVEY

Soil samples were collected at stations with a developed soil profile.The B-horizon was the sampled horizon.Samples were collected with a grub hoe and stored in kraft soil bags.Each bag was marked with the line number and station of the sample site

The soil profile is locally well developed but is generally poorly developed to absent.The B-horizon usually occurs beneath 2"-18" of leached,puggy, grey,Al-horizon soil.The B-horizon is often rocky,probably often being glacial till cover.

All but 89 samples were analyzed at Technical Service Laboratories,Mississauga,Ontario.89 samples were analyzed at Assayers Limited,Rouyn,Quebec All samples were analyzed for gold and 1193 of 1809 samples were analyzed for zinc and copper.

Values for each element are plotted on the accompanying maps at a scale of 1:2500.Gold is plotted as ppb,copper and zinc are plotted as ppm.

GOLD

Values range from <5 to >1000ppb (0.256 oz/ton on check assay).The higher value represents obvious contamination from the Straw Lake Beach Mine tailings.

Gold values as plotted are not amenable to contouring because of the high number of no-soil locations.Instead ,a symbol map is presented with the following divisions,20-30ppb:31-40ppb:41-50ppb:51-60ppb:61-70ppb:71-80ppb:81-90ppb:91-100ppb:100-110ppb:111-120ppb:121-130ppb and >131ppb.

Gold value are erratic,forming many areas with "bullseye" anomolies and only several anomolous "zones".The anomolous "zone" that occurs from L6+00W to L11+00W north of BL00 is a result of contamination at the Straw Lake Beach Mine-Site and tailings area.Weakly anomolous "zones" occur between L23+00E and L26+00E from 9+00S to 13+00S and on L32+00E from 2+50S to 4+50S.

COPPER-ZINC

No copper or zinc anomolies of significance where found on the property. The raw data is plotted on the accompanying maps at a scale of 1:2500.The

range of values are as follows:

Cu 2 - 156ppm
Zn 14 - 685ppm

ORGANIC SURVEY

Humus samples were taken at stations with poor to no-soil development. Samples of decayed or decaying "forest litter" were collected by "scooping" with a grub hoe or hand.Samples were taken from the A-horizon immediatly below actively growing vegetation.

All samples were analyzed for gold by the neutron activation method at Nuclear Activation Services Limited,Hamilton,Ontario.

Data is plotted at a scale of 1:2500 on the accompanying maps.Results are presented as a symbol map in the same manner as for the gold-soil survey with divisions at 5ppb between 10ppb and 64ppb.The range of values is from <1 to 17000ppb at the mine site (contamination).

As with the gold-soil survey results are erratic with many isolated high values.Two anomolous "zones" are the Straw Lake Beach Mine-area and L32+00E from 3+00S to 6+50S

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SECTION 6

IP/RESISTIVITY SURVEY

1983 EXPLORATION PROGRAM

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I.P. SURVEY

An induced polarization/resistivity survey totaling 33.55 km was completed on the Straw Lake Property by Mertens & MacNeil Geophysical Ground Surveys Ltd.

The survey was performed with a McPhar IP unit.The configuration used was dipole-dipole utilizing frequencies of 0.3Hz and 5.0Hz.Dipole spacing was 25m for N=4.

DATA PRESENTATION

The data is presented in three formats:

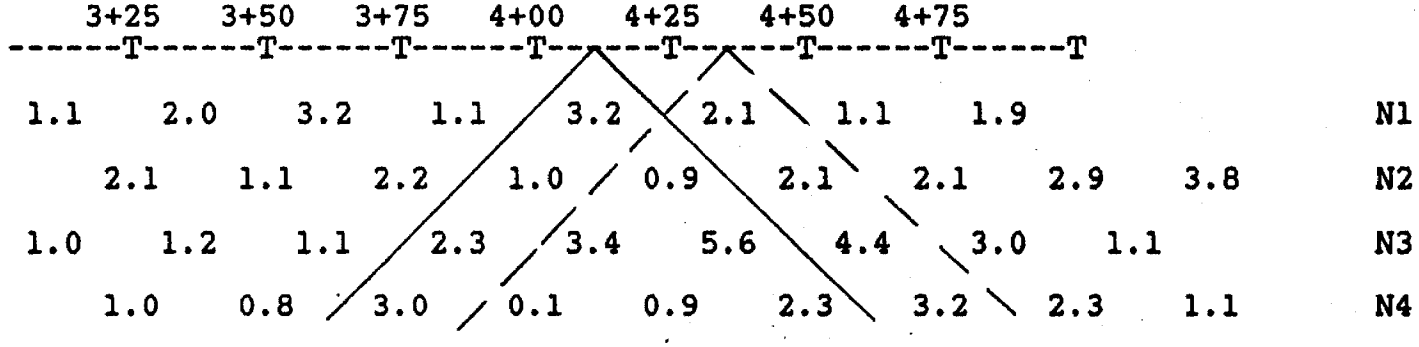
1) pseudo-sections for each line showing apparent resistivity,metal factor and frequency effect.Scale is 2cm=25m.

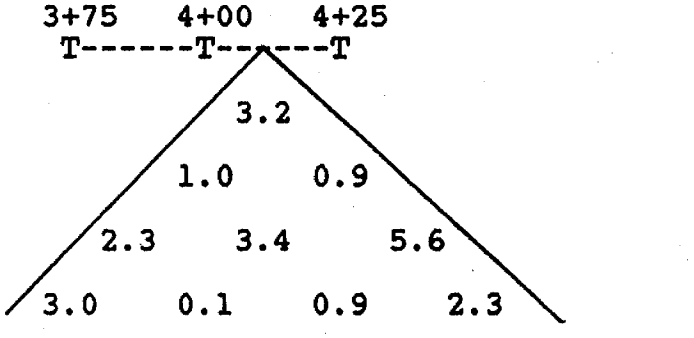
2) filtered and contoured plan maps of frecuency effect at 1:2500

3 filtered and contoured plan maps of apparent resistivity at 1:2500

Filtering for 2 and 3 was performed as follows:

PSEUDO-SECTION REPRESENTATION OF FREQUENCY EFFECT





FILTERED VALUE = [3.2+[(1.0+0.9)/2]+[(2.3+3.4+5.6)/3]+[(3.0+0.1+0.9+2.3)/4]]/4
The plotting point is 4+12.5
The filtered value is 2.4 . This procedure is then performed for each station.

The filter can be performed on frecuency effect,metal factor and apparent resistivity.On the accompanying maps filtered frequency effect is plotted to the right of the station and filtered apparent resistivity is plotted to the left of the station.One set of maps is presented with contoured frequency effect and one set of maps is presented with contoured apparent resistivity

INTERPRETATION

This interpretation is based on the filtered frequency effect plan map. The IP survey delineated nine stronly anomolous zones.Three anomolies are co-incident with VLF-EM anomolies the other six have no VLF-EM response.

ANOMOLY LOCATION		VLF-EM	STRENGTH
17+00W	9+00S - 10+50S	NO	10.95
16+00W - 10+00W	NORTH OF BL00	NO	8.5
7+00W - 2+50W	ALONG BL00	YES	8.6
4+00E - 10+00E (OPEN)	ALONG BL00	YES	10.9
4+00E - 9+00E	1+00S	YES	12.1
22+00E - 23+00E	6+50S	FLANKS	8.4
20+00E	8+25S - 9+00S	NO	9.1
19+00E - 20+00E (OPEN)	9+00S - 11+00S	NO	12.0
20+00E	13+00S- 14+00S	NO	10.1

STRAW LAKE PROJECT

I.P. SURVEY AREA

L0+00	4+25S	4+25N	950m
L1+00E	5+25S	4+75N	1000m
L2+00E	5+25S	5+25N	1050m
L3+00E	5+00S	6+25N	1125m
L4+00E	4+75S	5+75N	1050m
L5+00E	4+50S	5+50N	1000m
L6+00E	4+25S	4+75N	900m
L7+00E	1+75S	4+50N	625m
L8+00E	2+25S	2+75N	500m
L9+00E	4+50S	7+75N	1225m
L10+00E	1+75S	4+25N	600m
L19+00E	14+50S	5+00N	950m
L20+00E	15+00S	5+00S	1000m
L21+00E	15+00S	5+00S	1000m
L22+00E	15+00S	5+25S	975m
L23+00E	15+25S	5+00S	1025m
L24+00E	15+25S	5+00S	1025m
L25+00E	15+50S	5+00S	1050m
L26+00E	15+50S	5+00S	1050m
L28+00E	14+50S	0+50S	1400m
L30+00E	13+50S	BL 00	1350m
L32+00E	14+25S	0+25S	1400m

L1+00W	3+75S	4+00N	775m
L2+00W	3+75S	4+00N	775m
L3+00W	3+75S	3+75N	750m
L4+00W	4+25S	3+25N	750m
L5+00W	9+50S	6+50S	300m
	4+50S	3+50N	800m
L6+00W	5+00S	3+25N	825m
L7+00W	5+75S	3+25N	900m
L8+00W	5+75S	3+50N	925m
L8+50W	0+50N	3+25N	275m
L9+00W	0+50N	3+25N	275m
L10+00W	0+50N	3+25N	275m
L10+50W	0+50N	3+25N	275m
L11+00W	0+50N	3+00N	250m
L12+00W	BL 00	3+25N	325m
L13+00W	0+25N	3+50N	325m
L14+00W	0+25N	3+25N	300m
L15+00W	0+25N	3+50N	325m
L16+00W	0+25N	2+75N	250m
	14+50S	9+25S	525m
L17+00W	13+75S	8+75S	500m
L18+00W	13+50S	10+25S	325m
L19+00W	14+00S	11+25S	275m
		TOTAL	33.55km

This report was prepared by Randy Crowley for Sparton Resources Inc.

Respectfully submitted

Randy Crowley
Geologist

June 26/1984.

63.4320

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STRAW LAKE PROJECT
1983 EXPLORATION PROGRAM
SUMMARY REPORT
APPENDIX A

4 Geology Maps.

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SUMMARY REPORT
APPENDIX B

8 VLF. EM

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SUMMARY REPORT
APPENDIX C

8 Map Maps

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APPENDIX E

3 Filtered Resistivity
(CONTOURED)

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APPENDIX F

3 Filtered Permeability
(not continued)

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SUMMARY REPORT

APPENDIX G

4 Soil Geochem
GOLD (ppb)
- 2 west grids

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SUMMARY REPORT

APPENDIX H

4 Soil Geochem - COPPER (ppm)

2 west sheets

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SUMMARY REPORT

APPENDIX I

4 Soil Geochem ZINC (ppm)

2 West Sheets

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1983 EXPLORATION PROGRAM

SUMMARY REPORT

APPENDIX J

4 Humus Geochem - GOLD (ppb)
- 2 West Sheets.

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STRAW LAKE PROJECT
I.P.SURVEY

#63.4320

ON83-3-C-13

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STRAW LAKE PROJECT
1983 EXPLORATION PROGRAM
SUMMARY REPORT
APPENDIX D

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STRAW LAKE PROJECT

I.P. SURVEY
COVERAGE

L0+00	4+25S	4+25N	950m
L1+00E	5+25S	4+75N	1000m
L2+00E	5+25S	5+25N	1050m
L3+00E	5+00S	6+25N	1125m
L4+00E	4+75S	5+75N	1050m
L5+00E	4+50S	5+50N	1000m
L6+00E	4+25S	4+75N	900m
L7+00E	1+75S	4+50N	625m
L8+00E	2+25S	2+75N	500m
L9+00E	4+50S	7+75N	1225m
L10+00E	1+75S	4+25N	600m
L19+00E	14+50S	5+00N	950m
L20+00E	15+00S	5+00S	1000m
L21+00E	15+00S	5+00S	1000m
L22+00E	15+00S	5+25S	975m
L23+00E	15+25S	5+00S	1025m
L24+00E	15+25S	5+00S	1025m
L25+00E	15+50S	5+00S	1050m
L26+00E	15+50S	5+00S	1050m
L28+00E	14+50S	0+50S	1400m
L30+00E	13+50S	BL 00	1350m
L32+00E	14+25S	0+25S	1400m
L1+00W	3+75S	4+00N	775m
L2+00W	3+75S	4+00N	775m
L3+00W	3+75S	3+75N	750m
L4+00W	4+25S	3+25N	750m
L5+00W	9+50S	6+50S	300m
	4+50S	3+50N	800m
L6+00W	5+00S	3+25N	825m
L7+00W	5+75S	3+25N	900m
L8+00W	5+75S	3+50N	925m
L8+50W	0+50N	3+25N	275m
L9+00W	0+50N	3+25N	275m
L10+00W	0+50N	3+25N	275m
L10+50W	0+50N	3+25N	275m
L11+00W	0+50N	3+00N	250m
L12+00W	BL 00	3+25N	325m
L13+00W	0+25N	3+50N	325m
L14+00W	0+25N	3+25N	300m
L15+00W	0+25N	3+50N	325m
L16+00W	0+25N	2+75N	250m
	14+50S	9+25S	525m

L17+00W	13+75S	8+75S	500m
L18+00W	13+50S	10+25S	325m
L19+00W	14+00S	11+25S	275m
		TOTAL	33.55km

4+50S 4+25S 4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+

4697 6175 2904 8173 6386 7405 26077 11241 8312 12777 5486 20900 8934 3562 7885 4393 3952 8730 4127
5472 12604 5398 4892 17521 8420 12000 23980 8359 16218 17812 10781 17343 4401 6763 4988 3662 5275 15387
12165 8154 7405 10397 19626 12017 11750 14975 14725 21588 27787 8407 7291 6355 4105 3715 5143 3968 5115
7481 9715 15200 9500 24177 11500 6850 29200 19079 30537 19617 3842 8977 3623 2907 4750 7567 7600

0.3 0.4 0.4 0.1 0.3 0.2 0.1 0.1 0.2 0.1 0.3 0.8 0.3 2.0 0.5 1.7 1.3 0.2 0.4
0.2 0.2 0.3 0.3 0.1 0.2 0.3 0.1 0.2 0.1 0.1 0.2 0.2 1.3 1.8 1.5 1.8 1.0 0.1 0.3
0.1 0.2 0.3 0.2 0.1 0.2 0.2 0.2 0.1 0.1 0.1 0.3 0.7 1.8 2.3 2.0 1.3 0.6 0.1
0.2 0.2 0.2 0.2 0.1 0.3 0.5 0.1 0.1 0.1 0.1 1.2 0.6 2.5 3.1 1.6 0.8 0.6

1.3 2.2 1.3 1.1 1.7 1.8 2.3 0.9 1.9 1.5 1.7 1.8 3.1 7.3 4.1 7.5 5.0 1.8 1.8
0.9 2.5 1.8 1.4 1.8 2.0 3.1 3.0 1.4 2.0 2.0 2.4 2.8 5.7 7.1 7.7 6.8 5.1 1.9 1.6
1.5 1.7 1.5 1.9 1.9 2.9 2.9 3.3 1.5 2.5 2.1 2.7 5.3 6.3 9.7 7.5 6.6 4.9 1.6
1.4 1.7 2.3 2.3 2.8 2.9 3.2 3.4 1.6 2.6 2.9 4.6 5.8 9.1 9.1 7.4 6.8 4.7

2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N

14

6077 11241 8312 12777 5486 20900 8934 3562 7885 4393 5952 8730 4127 2544 5542 7529 6828 2125
23980 8359 16218 17812 10781 17343 4401 6763 4988 3662 5275 15387 4727 8050 5911 8742 4590
7758 14975 14785 21588 27787 8407 7291 6355 4105 3715 5143 8468 5115 14028 14110 8336 5789 4902 5517
6850 29200 19079 30537 19617 3842 8977 3623 2907 4750 7567 76001 36942 21906 9358 3077 5408

0.1 0.1 0.2 0.1 0.3 0.8 0.3 2.0 0.5 1.7 1.3 0.2 0.4 0.6 2.5 0.2 2.3 0.2 2.5
0.1 0.2 0.1 0.1 0.2 0.2 1.3 1.0 1.5 1.8 1.0 0.1 0.3 0.2 0.2 0.3 0.3 0.2
0.2 0.2 0.1 0.1 0.1 0.3 0.7 1.0 2.3 2.0 1.3 0.6 0.1 0.1 0.2 0.2 0.3 0.4 0.3
0.5 0.1 0.1 0.1 0.1 1.2 0.6 2.5 3.1 1.6 0.8 0.6 0.1 0.2 0.2 0.3 0.6 0.5

2.3 0.9 1.9 1.5 1.7 1.8 3.1 7.3 4.1 7.5 5.0 1.8 1.8 1.4 2.3 1.6
3.0 1.4 2.0 2.0 2.4 2.8 5.7 7.1 7.7 6.8 5.1 1.9 1.6 2.1 1.6 2.3 1.0
2.9 3.3 1.5 2.5 2.1 2.7 5.3 6.3 9.7 7.5 6.6 4.9 1.6 1.6 2.3 1.9 1.8 1.8 1.9
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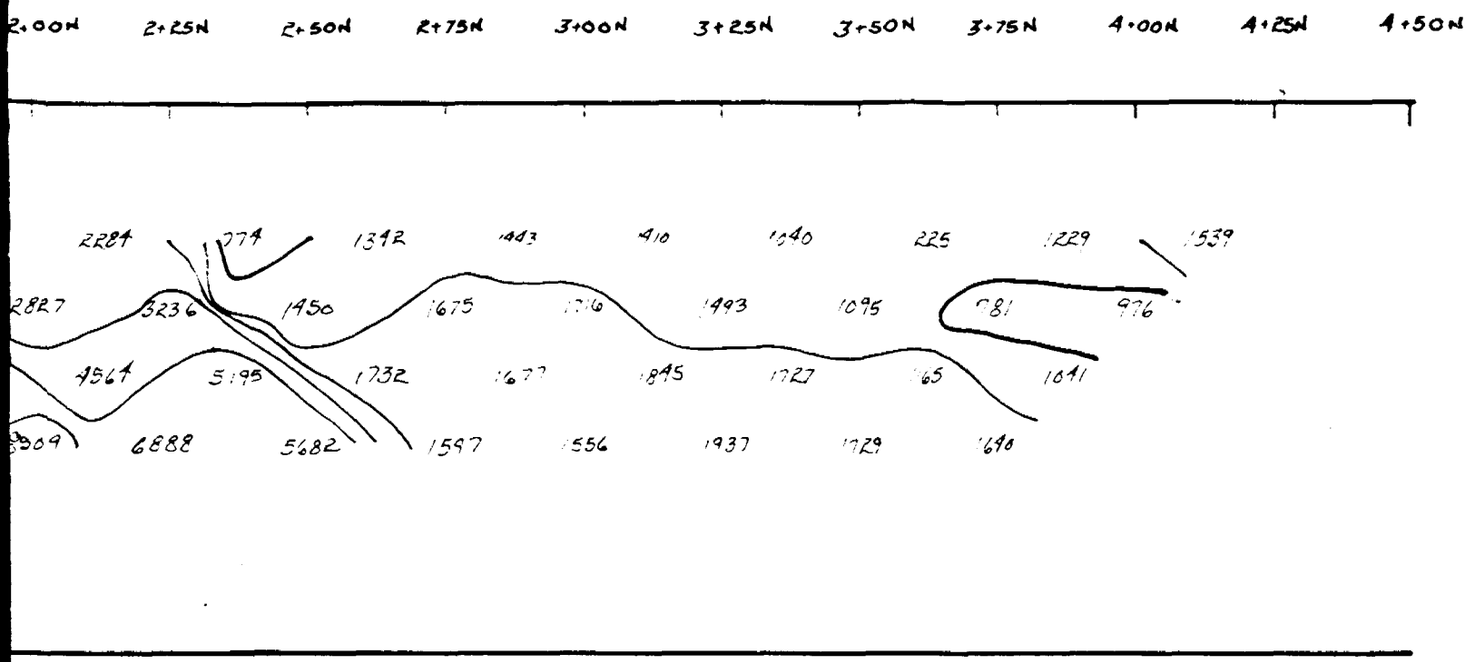
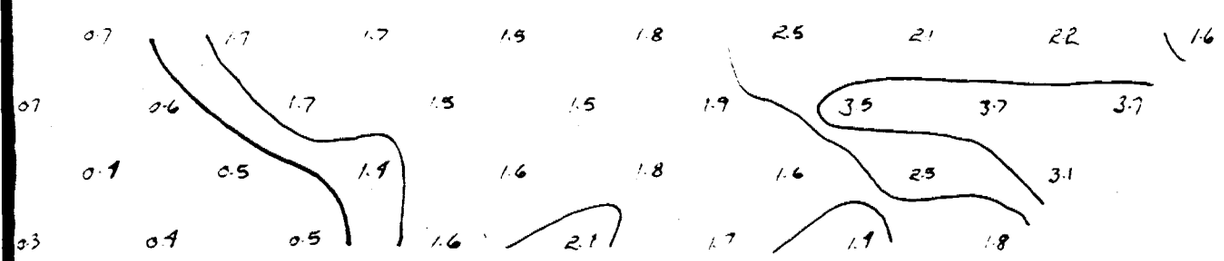
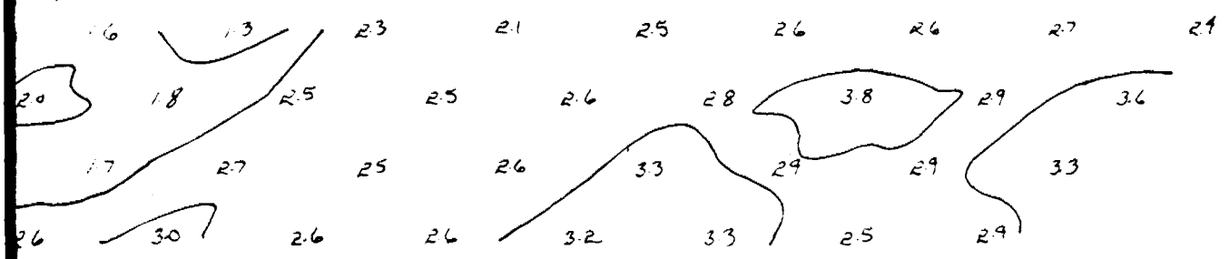






SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 0 + 00

M.F.

F.E.

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

05 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25N 3+50N 3+75N

7293 6317 5145 7971 3055 1447 4134 8957 3528 9975 3882 12996 6225 3483 3332 1178 851 988 746 813 1092

1812 5635 8315 3600 1979 2991 7152 8236 11316 9575 6847 9611 3458 3218 3930 1302 931 1007 662 636 585

12326 8206 8694 3277 1999 2981 5493 5453 24428 10433 14250 4950 4270 2747 4402 3800 1570 924 831 596 629

46 7600 11771 3451 1914 2717 4728 3977 14988 21375 12616 10200 2202 3182 3690 3800 4658 1599 697 779 718 793

0.2 0.4 1.1 0.8 2.6 5.7 0.9 0.2 0.5 0.2 0.2 0.1 0.4 0.4 0.6 2.1 2.4 2.0 2.7 2.6 2.2

0.2 1.0 1.6 3.0 3.1 2.6 0.5 0.2 0.2 0.1 0.2 0.2 0.3 0.7 0.6 1.5 2.1 1.8 3.8 3.8 4.6

0.2 0.7 0.9 3.8 4.7 1.8 1.0 0.7 0.1 0.2 0.1 0.4 0.4 0.7 0.5 0.6 1.2 2.4 2.5 5.2 4.0

0.7 0.6 3.2 4.7 3.0 1.6 1.3 0.3 0.1 0.1 0.1 0.5 0.8 0.5 0.5 0.5 1.3 3.6 4.0 4.6 3.5

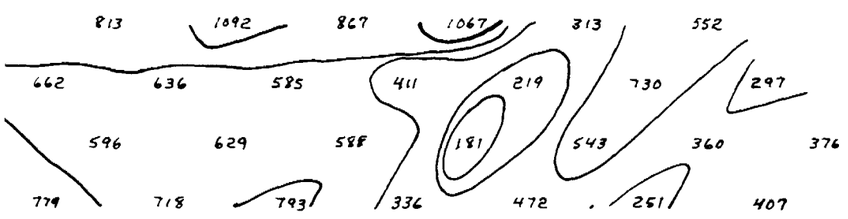
1.5 2.4 5.9 6.1 8.0 8.3 3.9 1.7 1.8 1.5 1.7 1.5 2.2 1.4 2.0 2.5 2.0 2.0 2.1 2.1 2.4

2.6 5.6 8.5 10.9 6.1 7.9 3.3 1.8 1.9 1.0 1.4 2.1 1.2 2.1 2.4 1.9 2.0 1.8 2.5 2.4 2.7

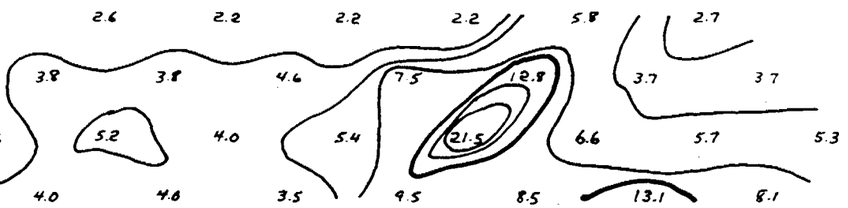
2.0 6.0 7.6 12.5 9.3 5.3 5.6 3.6 1.9 1.6 1.3 1.8 1.7 2.0 2.2 2.1 1.9 2.2 2.1 3.1 2.5

5.2 7.6 11.1 9.0 8.0 4.7 5.2 3.8 1.7 1.2 1.5 1.2 2.4 1.9 1.8 2.3 2.1 2.5 3.1 2.9 2.8

3+25N 3+50N 3+75N 4+00N 4+25N 4+50N 4+75N 5+00N 5+25N 5+50N 5+75N 6+00N



M.F.



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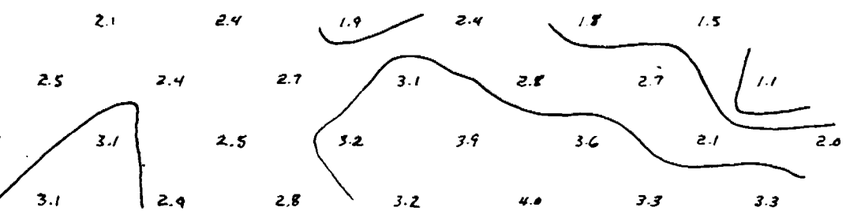


SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval
FREQUENCIES : 0·3 & 5·0 Hz.
DATE:

LINE: 1 E

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

6+00S 5+75S 5+50S 5+25S 5+00S 4+75S 4+50S 4+25S 4+00S 3+75S 3+50S 3+25 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+0

N-1 13389 25940 22471 31350 15021 36100 5844 4128 1334 1408 3771 6122 7846 9452 6614 5173 3677

N-2 13476 23750 11615 42443 42656 39140 22047 4040 2451 6310 6142 3303 7187 12222 13781 8152 5431 1025

N-3 18287 26177 17319 37050 72977 33250 19982 8121 3002 10888 24732 5036 2897 8352 15780 14582 7935 12951

N-4 23631 31138 19073 35150 56050 35466 20408 6387 5092 14698 37561 20768 4029 2698 9262 15692 14060 17385 1107

N-1 0.2 0.1 0.1 0.1 0.2 0.1 0.2 0.5 0.5 0.8 0.3 0.4 0.2 0.3 0.4 0.6 0.6

N-2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.4 0.7 0.2 0.2 0.4 0.4 0.2 0.2 0.2 0.4 0.2

N-3 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.3 0.6 0.2 0.1 0.4 0.7 0.4 0.2 0.1 0.2 0.2

N-4 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.4 0.4 0.2 0.1 0.1 0.6 1.3 0.4 0.1 0.1 0.1 0.6

N-1 2.4 2.0 1.7 2.0 2.8 2.5 1.9 2.2 0.7 1.1 1.2 2.2 1.9 2.4 2.4 2.9 2.3

N-2 2.1 2.1 1.4 1.8 2.1 2.3 2.5 1.7 1.8 1.3 1.3 1.5 2.8 2.9 2.3 4.6 2.1 2.2

N-3 1.8 2.1 1.4 1.6 2.1 1.9 2.2 2.3 1.7 2.6 1.1 2.0 2.1 3.5 2.7 1.5 1.3 2.3

N-4 2.1 1.7 1.5 1.8 1.7 1.9 2.2 2.3 2.2 2.7 2.4 1.6 2.5 3.4 3.3 2.1 1.2 1.4 6.5

2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N

9452 6614 5173 3677 4781 4291 1900 1480 8025 10030 5733 5858 2912 1754 1572 875 992 844 730 593 544

12222 13781 8152 5431 10250 5618 3006 987 2566 17133 7444 9017 7447 2703 1744 2089 1486 993 1031 644 373

15780 14582 7935 12451 9303 4176 1390 1852 4995 10056 10701 10597 6122 2287 1984 3254 1425 1593 965 547 383

9262 15692 14060 17385 11072 6322 2003 2080 3356 3125 12415 12238 7600 5198 2208 2723 2864 2173 1524 814 580

0.3 0.4 0.6 0.6 0.3 1.2 5.7 6.4 0.6 0.1 0.2 0.3 0.6 0.9 1.1 1.8 1.3 1.9 2.2 2.4 2.4

0.2 0.2 0.2 0.4 0.2 1.0 3.0 9.0 3.0 0.3 0.2 0.2 0.2 0.7 1.5 0.7 1.1 1.4 1.6 1.9 3.2

0.2 0.1 0.2 0.2 0.7 2.1 5.5 3.2 1.4 0.5 0.2 0.2 0.3 0.7 0.6 0.4 1.1 0.9 1.7 2.7 5.0

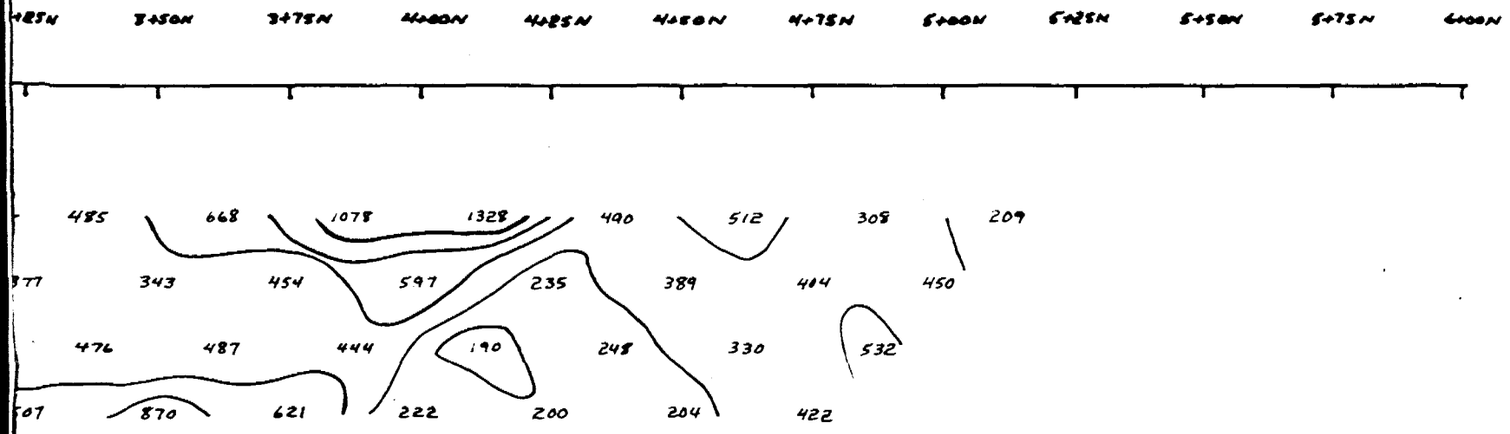
0.4 0.1 0.1 0.1 0.6 1.5 3.7 2.6 1.5 2.0 0.4 0.2 0.2 0.2 0.4 0.5 0.5 0.6 1.0 2.0 3.4

2.4 2.4 2.9 2.3 1.3 5.3 10.8 9.5 4.9 1.5 1.4 1.5 1.8 1.6 1.7 1.6 1.3 1.6 1.6 1.4 1.3

2.9 2.3 4.6 2.1 2.2 5.4 9.1 8.9 7.5 4.8 1.5 1.5 1.7 1.8 2.6 1.4 1.6 1.4 1.7 1.2 1.2

2.7 1.5 1.3 2.3 6.3 8.6 7.6 6.0 7.2 4.7 1.9 1.7 1.6 1.5 1.3 1.3 1.5 1.5 1.5 1.6 1.5 1.A

3.3 2.1 1.2 1.4 6.5 9.4 7.4 5.5 5.2 6.2 4.9 2.2 1.4 .2 0.9 1.4 1.5 1.3 1.5 1.6 2.0



Ca

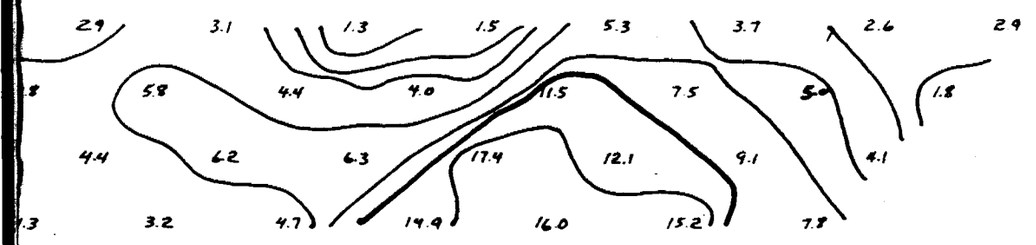
SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

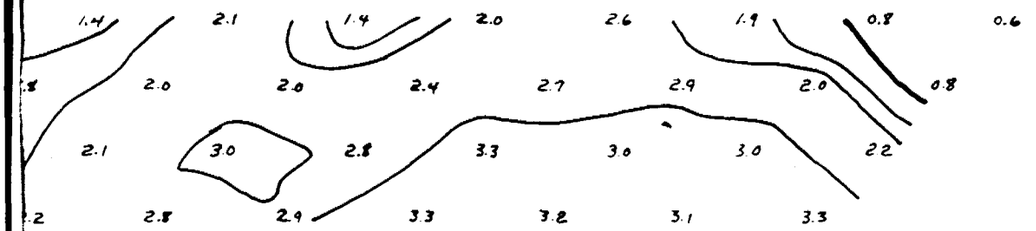
SCALE : 2·0 cm = 25·0m = Electrode Interval
FREQUENCIES : 0·3 & 5·0 Hz.
DATE:

LINE: 2 E



MF

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.



FE

6+00S 5+75N 5+50S 5+25S 5+00S 4+75S 4+50S 4+25S 4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S

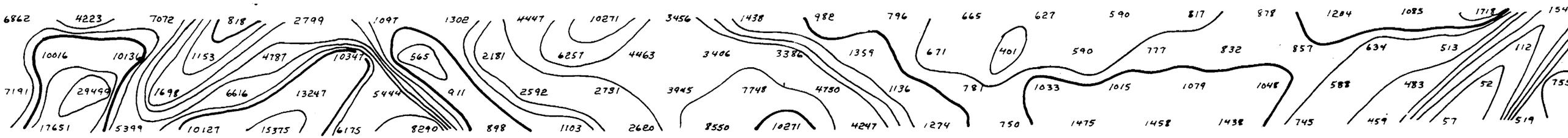
1
2
3
4

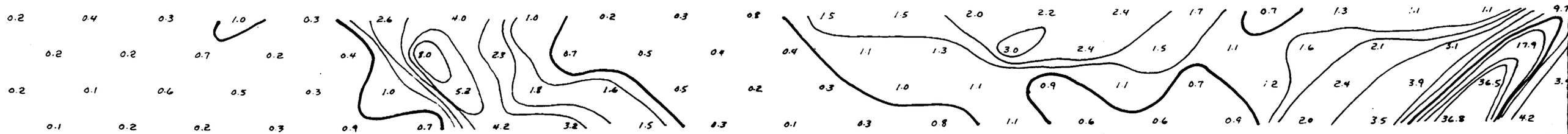
7871 40071 15406 33428 6412 27930 19725 5339 11004 8099 12207 4767 8094 6862 4223 7072
13232 17426 14918 37700 12096 28325 18059 5378 3626 10239 12434 20812 6402 5400 10016 10134 1153
23444 23833 9293 40375 12104 51062 14525 43750 3586 2707 12323 23799 20448 4468 7191 29499 1698
25582 34926 11895 29755 12043 47500 26300 29100 28500 2473 3306 21850 21349 12682 5207 17651 5399 10127

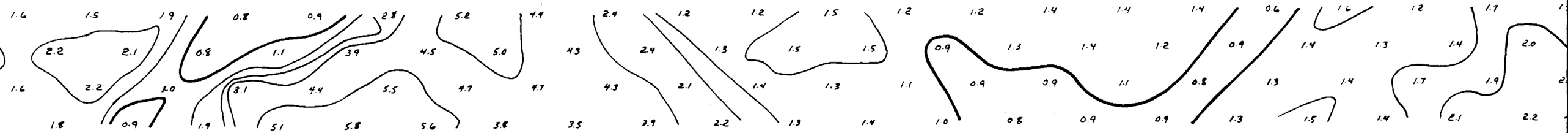
0.2 0.1 0.1 0.1 0.2 0.1 0.2 0.9 0.2 0.2 0.2 0.3 0.2 0.2 0.4 0.3
0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.9 1.2 0.2 0.2 0.1 0.3 0.2 0.2 0.2 0.7
0.1 0.1 0.1 0.1 0.1 0.1 0.3 0.1 1.3 1.5 0.2 0.1 0.2 0.4 0.2 0.1 0.6
0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 1.3 1.0 0.1 0.1 0.2 0.4 0.1 0.2 0.2

1.5 2.2 1.7 1.9 1.0 1.9 4.5 4.9 1.7 1.9 2.0 1.6 1.4 1.6 1.5 1.9
1.8 1.9 1.1 1.7 1.3 1.5 4.2 4.7 4.4 1.9 2.1 2.7 2.2 1.1 2.2 2.1 0.8
1.4 1.8 1.2 1.6 1.1 1.6 3.9 4.3 4.5 4.1 1.9 2.3 3.2 2.0 1.6 2.2 1.0
1.1 1.8 1.3 1.9 1.0 1.6 3.5 3.8 4.5 3.2 3.5 2.9 3.0 3.1 2.3 1.8 0.9 1.9

1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25N 3+50N







SPARTON RESOURCES INC

STRAW LAKE PROJECT

FORT FRANCIS, ONTARIO.

H P I P SURVEY (D:POLE-DIPOLE)

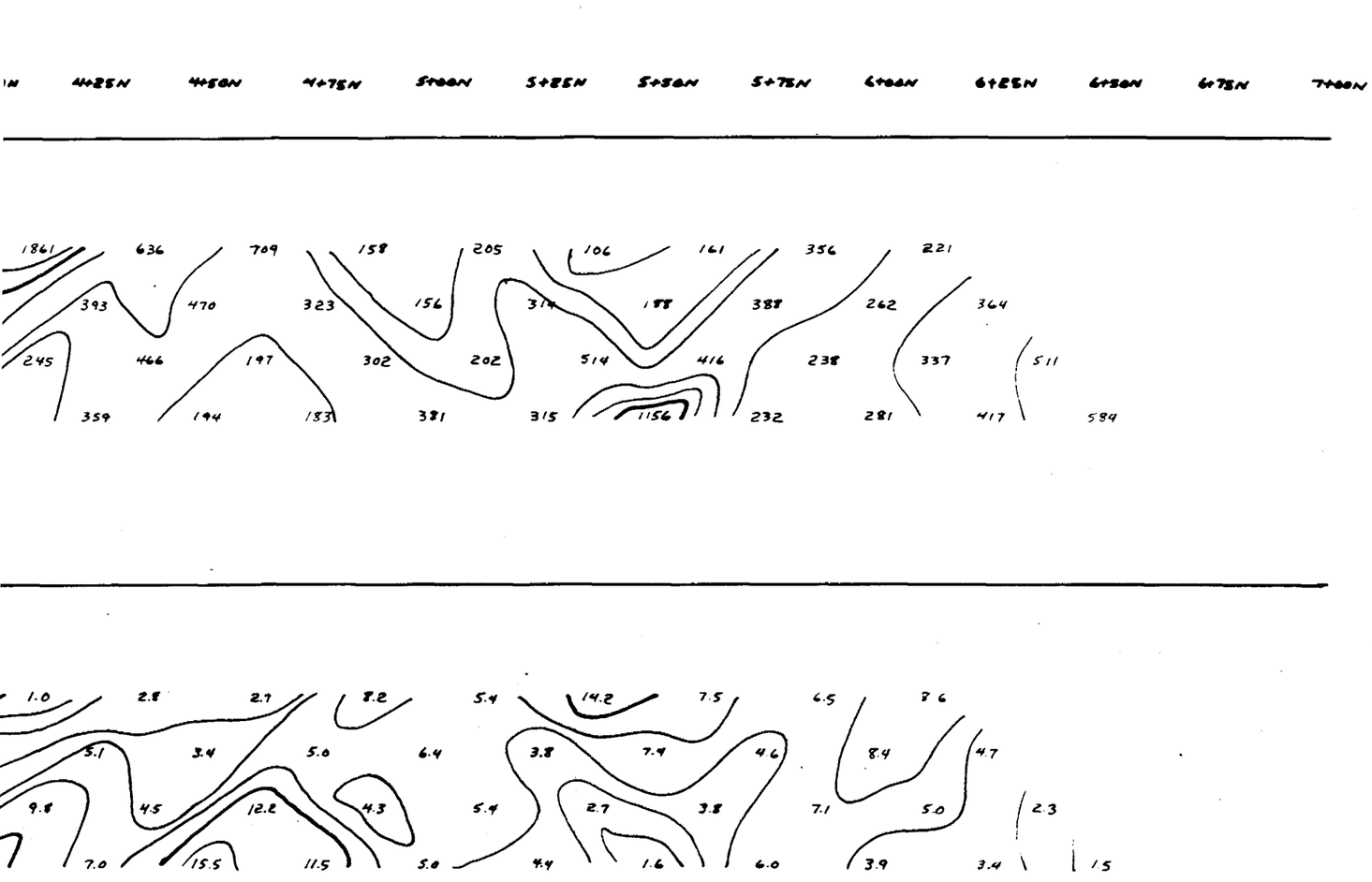
SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

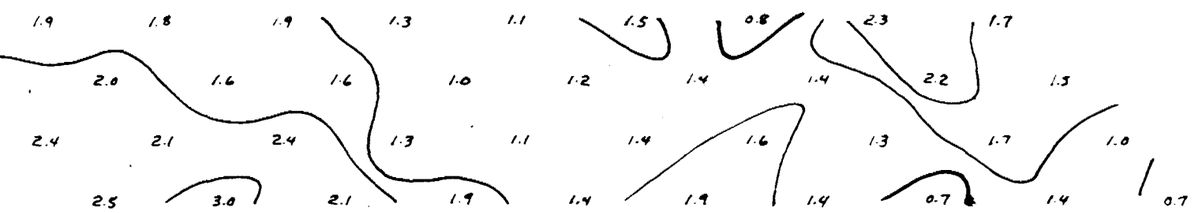
LINE: 3 E

M.F.



Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

F.E.



5+505 5+255 5+005 4+755 4+505 4+255 4+005 3+755 3+505 3+255 3+005 2+755 2+505 2+255 2+005 1+755 1+505 1+255 1+005 0+755 0+5

N-1 2236 4771 7145 12238 4291 18398 5400 6713 10900 4825 11096 2823 12239 5818 10422 6555 6337
N-2 1554 2642 9464 26801 4821 23942 40559 5378 7975 5078 14901 9675 8229 13125 8554 7237 6907 772
N-3 745 1787 5745 12327 9008 20096 42750 40750 5320 3230 15800 11100 23180 7327 18236 4646 6810 6763
N-4 1733 1900 3121 6929 4105 32080 33700 42900 37506 1952 9690 10450 23450 18316 8849 9991 3473 4750 704

N-1 0.5 0.3 0.1 0.1 0.4 0.1 0.5 0.6 0.3 0.4 0.1 0.6 0.2 0.6 0.4 0.6 0.6
N-2 0.6 0.3 0.2 0.1 0.3 0.1 0.1 0.8 0.5 0.6 0.1 0.2 0.3 0.4 0.5 0.9 0.5 1.0
N-3 0.6 0.4 0.3 0.1 0.2 0.1 0.1 0.1 0.7 1.1 0.2 0.2 0.1 0.7 0.3 1.4 0.9 1.1
N-4 0.5 0.5 0.4 0.2 0.5 0.1 0.1 0.1 0.1 1.6 0.3 0.3 0.1 0.3 0.6 0.6 1.4 2.2 0.9

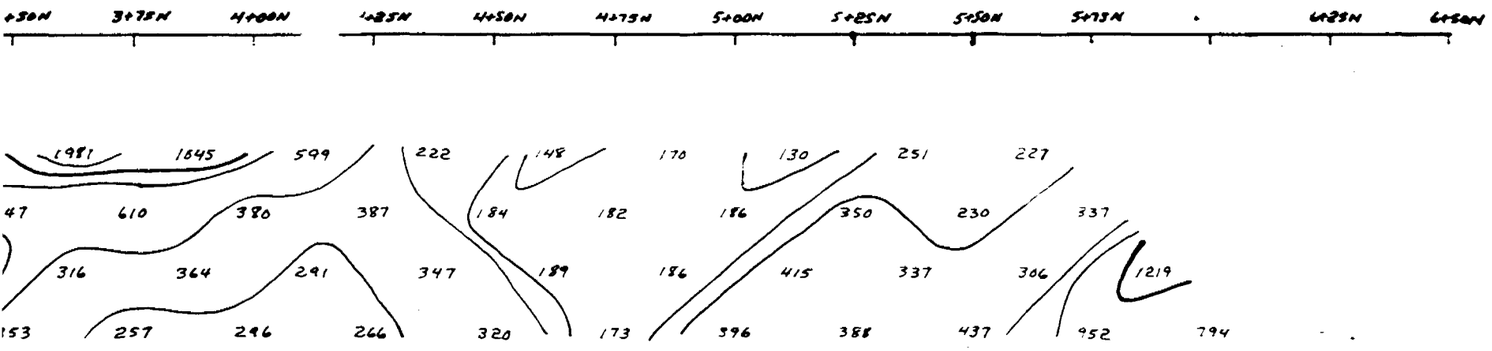
N-1 1.1 1.3 1.3 1.2 1.9 1.6 2.7 3.9 2.9 2.1 1.3 1.8 2.8 3.6 3.7 4.1 3.5
N-2 1.0 0.9 2.0 1.4 1.6 1.4 3.1 4.2 3.7 2.9 2.0 2.0 2.4 4.9 4.3 6.4 3.7 7.4
N-3 1.0 0.8 1.5 1.5 1.6 1.2 2.8 3.9 3.8 3.5 2.6 2.5 2.8 4.8 5.1 6.3 6.0 7.7
N-4 0.8 0.9 1.2 1.3 1.9 1.4 2.9 4.0 3.9 3.2 3.1 3.3 3.0 5.1 5.1 6.4 4.9 10.4 9.1

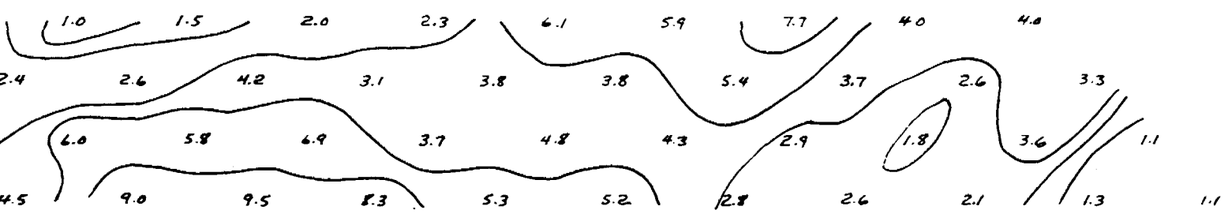
0+85S 0+00 0+85N 0+50N 0+75N 1+00N 1+85N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25 3+50N 3+75N 4+00N 4+25N 4+50N 4+75N

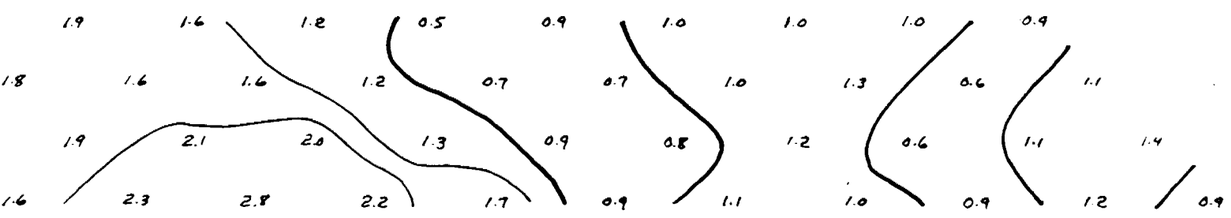
2923 2559 4723 2726 1847 623 750 715 361 691 541 765 784 1048 867 1981 1645 599 222 148 170
9483 1906 4131 2704 3993 2590 1010 741 1041 751 633 794 775 730 619 747 610 380 387 184 182
4535 2489 2114 3370 6157 4644 1205 1022 909 933 1170 1169 1113 648 787 316 364 291 347 189 186
8550 7248 1107 2397 5133 10397 5647 1632 852 1035 1615 1578 1624 991 793 353 257 296 266 320 173

2.4 3.7 0.7 0.3 0.5 1.9 1.6 1.4 1.3 1.0 2.0 2.0 1.4 1.2 2.2 1.0 1.5 2.0 2.3 6.1 5.9
0.6 4.2 0.9 1.3 0.2 0.4 1.1 1.3 0.9 1.1 1.4 1.5 1.8 1.8 2.3 2.4 2.6 4.2 3.1 3.8 3.8
0.9 2.8 1.8 0.9 0.2 0.2 0.8 0.8 0.6 0.5 0.9 1.1 1.3 2.0 2.0 6.0 5.8 6.9 3.7 4.8 4.3
1.1 0.6 5.4 1.4 0.6 0.1 0.2 0.6 0.7 0.1 0.4 0.7 0.8 1.6 2.1 4.5 9.0 9.5 8.3 5.3 5.2

6.9 4.7 3.5 0.9 1.0 1.2 1.2 1.0 0.7 1.1 1.5 1.1 1.3 1.8 1.9 1.6 1.2 0.5 0.9 1.0
5.3 8.0 3.9 3.4 0.9 1.1 1.1 1.0 0.9 0.8 0.9 1.2 1.4 1.3 1.4 1.8 1.6 1.6 1.2 0.7 0.7 0.8
5.9 6.9 3.7 3.1 1.1 0.7 1.0 0.8 0.5 0.5 1.1 1.3 1.4 1.3 1.6 1.9 2.1 2.0 1.3 0.9
9.4 4.5 6.0 3.4 3.3 1.1 1.0 0.9 0.6 0.1 0.7 1.1 1.3 1.6 1.7 1.6 2.3 2.8 2.2 1.7 0.9







SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0 m = Electrode interval
FREQUENCIES : 0·3 & 5·0 Hz.
DATE:

LINE: 4 E

M.F.

F.E.

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

5+505 5+255 5+005 4+755 4+505 4+255 4+005 3+755 3+505 3+255 3+005 2+755 2+505 2+255 2+005 1+755 1+505 1+255 1+005 0+755 0+505

2120 2814 3865 12302 2128 10093 44421 7437 6394 6946 0327 8053 6113 1158 2018 10990
800 4756 3526 12343 5887 13875 18028 4531 8782 11250 13867 7901 6102 2192 1111 4732 15570
1060 2093 4789 8787 5643 37406 21740 19395 4478 13499 20461 14942 5123 1884 2251 2001 18119
1486 2797 2008 10323 3762 29687 50605 20585 18151 6113 23974 19548 8510 1713 1925 4336 2870 1958

0.7 0.2 0.3 0.1 0.8 0.1 0.3 0.5 0.3 0.2 0.1 0.3 0.9 10.0 2.9 0.6
0.2 0.2 0.3 0.1 0.2 0.1 0.1 0.7 0.4 0.2 0.1 0.3 0.9 4.5 7.3 1.7 0.4
0.8 0.5 0.2 0.1 0.2 0.1 0.1 0.1 0.6 0.2 0.1 0.2 1.0 4.7 2.9 4.1 0.9
0.2 0.4 0.3 0.1 0.3 0.1 0.1 0.1 0.2 0.5 0.1 0.2 0.6 4.8 2.9 1.6 3.1 7.0

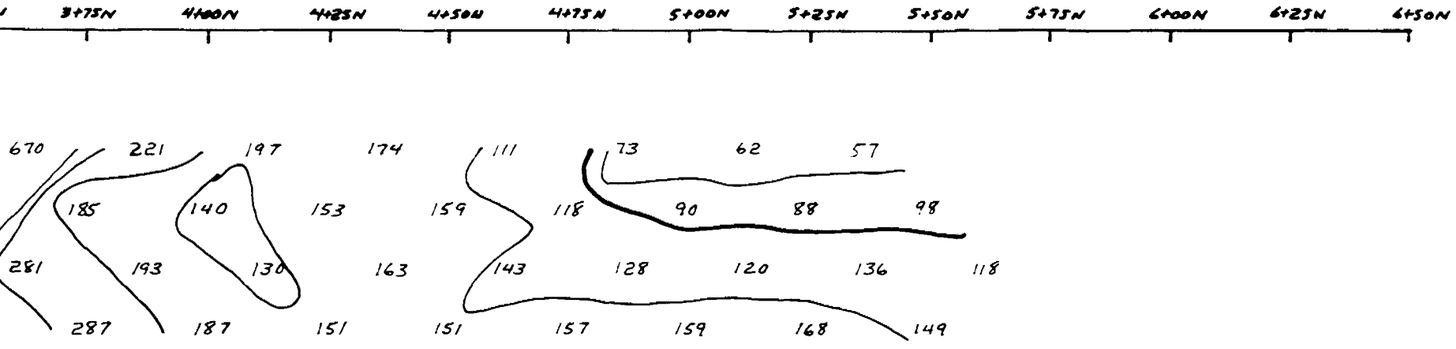
1.4 0.7 1.1 1.5 1.8 1.2 1.5 3.6 1.6 1.2 0.8 2.8 5.6 11.6 5.9 6.6
0.8 1.0 1.2 0.6 1.1 1.3 1.9 3.1 3.3 1.9 0.7 2.5 5.4 9.9 8.1 8.0 6.6
0.8 1.0 1.1 0.8 1.0 1.3 1.7 2.8 2.9 3.1 1.6 2.7 5.1 8.8 6.5 8.2 9.5
0.3 1.0 0.7 1.0 1.1 1.1 1.7 2.9 2.8 2.8 2.6 3.6 5.5 8.3 5.5 7.1 8.9 13.6

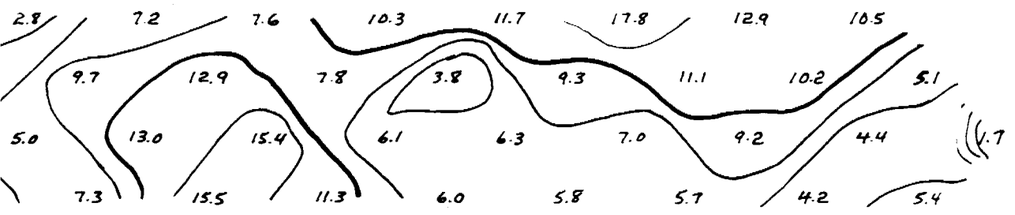
0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25N 3+50N 3+75N 4+00N 4+25N 4+50N 4+75N 5+00

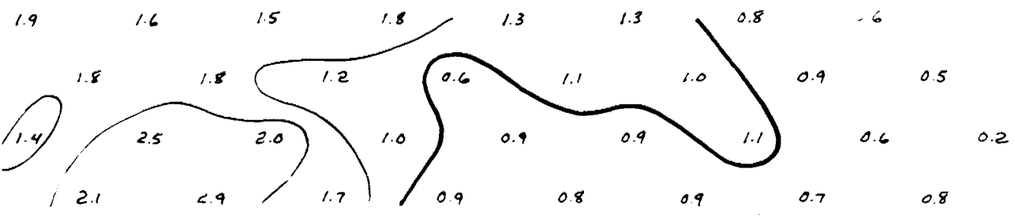
3351 6536 3530 8157 12571 4598 2342 2720 2478 2797 3226 2188 1227 1443 1352 670 221 197 174 111 73
3776 3639 4843 5835 11942 9687 3382 3271 2599 3347 3265 3964 2733 1571 1116 518 185 140 153 159 118 90
3923 3340 6289 8402 9685 6745 4617 3161 2814 3456 3664 4201 3053 1438 708 281 193 130 163 143 128
7269 3641 4066 8746 6714 7434 8581 4148 3624 2604 3494 3763 4175 2610 981 410 287 187 151 151 157 159

3.0 0.9 1.6 0.2 0.1 0.3 0.7 0.5 0.5 0.7 0.5 1.0 1.5 1.8 1.7 2.8 7.2 7.6 10.3 11.7 17.8
2.5 2.7 1.7 0.8 0.2 0.2 0.5 0.6 0.6 0.5 0.6 0.5 0.9 1.8 2.2 3.1 9.7 12.9 7.8 3.8 9.3 11.1
2.3 2.7 1.1 0.6 0.2 0.2 0.3 0.6 0.7 0.5 0.6 0.5 1.0 1.6 2.7 5.0 13.0 15.4 6.1 6.3 7.0
1.5 2.0 1.9 0.8 0.7 0.2 0.2 0.4 0.5 0.7 0.5 0.6 0.7 1.0 2.0 3.9 7.3 15.5 11.3 6.0 5.8 5.7

10.2 5.8 5.6 1.8 1.9 1.5 1.6 1.4 1.2 1.9 1.7 2.1 1.9 2.6 2.3 1.9 1.6 1.5 1.8 1.3 1.3
9.6 9.8 8.1 4.8 2.2 1.5 1.6 1.9 1.6 1.8 1.9 2.1 2.5 2.8 2.4 1.6 1.8 1.8 1.2 0.6 1.1 1.0
9.0 8.9 7.0 5.1 2.3 1.6 1.3 1.8 2.0 1.8 2.2 2.1 3.2 2.3 1.9 1.4 2.5 2.0 1.0 0.9 0.9
10.8 7.3 7.8 6.9 4.4 2.3 1.6 1.5 1.8 1.8 1.8 2.3 3.1 2.7 2.0 1.6 2.1 2.9 1.7 0.9 0.8 0.9







SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0 m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 5 E

M.F.

F.E.

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

5+00S 4+75S 4+50S 4+25S 4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S

N-1 2775 6234 15335 20868 12468 13859 9975 4308 8233 4680 6772 2418 498 1447 1387 14772 647

N-2 6428 3656 8906 35375 17062 15267 22286 9468 6830 5580 13710 7047 571 782 1001 4087 9249

N-3 8923 8550 4410 19760 28025 21205 20943 23845 13418 4546 15494 10489 1523 832 822 2686 1814 4560

N-4 8957 10390 9839 8740 15247 31451 27852 21375 29386 7885 12451 10291 2216 2063 768 1933 9975 1219

N-1 .6 0.2 0.1 0.1 0.2 0.1 0.3 1.0 0.2 0.1 0.1 2.0 24.9 7.0 7.9 .05 1.4

N-2 0.2 0.5 0.1 0.1 0.1 0.1 0.1 0.5 0.5 0.1 0.1 0.7 18.4 9.7 7.7 2.3 1.3

N-3 0.1 0.2 0.4 0.1 0.1 0.1 0.1 0.2 0.3 0.6 0.1 0.5 6.4 6.5 6.6 2.6 8.0 3.0

N-4 0.1 0.1 0.1 0.3 0.2 0.1 0.1 0.1 0.1 0.4 0.3 0.6 4.0 2.6 7.2 3.8 1.1 9.8

N-1 1.8 1.3 1.5 1.9 2.3 1.6 2.6 4.4 1.4 0.1 0.7 4.9 12.4 10.2 11.0 7.1 9.3

N-2 1.5 1.8 1.2 2.0 2.5 1.3 2.8 4.8 3.7 0.4 0.7 5.1 10.6 7.6 7.7 9.4 11.6

N-3 1.3 1.6 1.7 1.8 2.8 1.8 2.5 3.9 4.3 2.7 1.2 5.3 9.7 5.9 5.4 7.1 14.5 13.5

N-4 .1 1.2 1.4 2.2 2.6 2.1 2.5 3.2 3.3 2.9 3.4 5.8 8.8 5.3 5.5 7.3 10.9 12.0

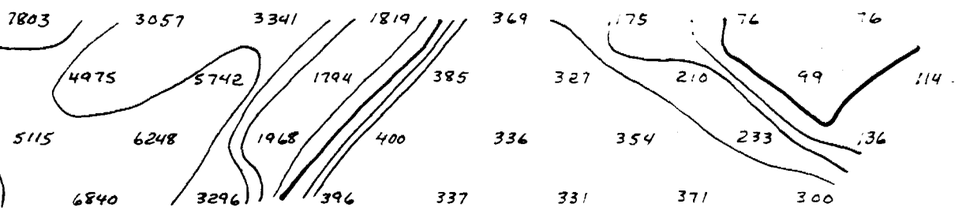
0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25N 3+50N 3+75N 4+00N 4+25N 4+50N 4+75N 5+00N 5+

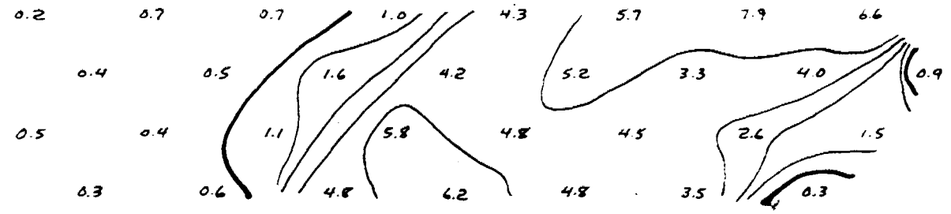
7041 3124 10051 10022 9658 5462 3579 5266 7177 8906 12290 7803 3057 3341 1819 369 175 76 76
3008 1781 4953 13725 17906 8125 4795 5470 10416 9253 7947 6227 4975 5742 1794 385 327 210 99 114
2785 2718 7949 21660 14289 6796 5343 7388 7243 7689 3800 5115 6248 1968 400 336 354 233 136
4686 3687 4000 12899 15437 11034 6697 5963 7410 5492 4200 3120 6840 3296 396 337 331 371 300

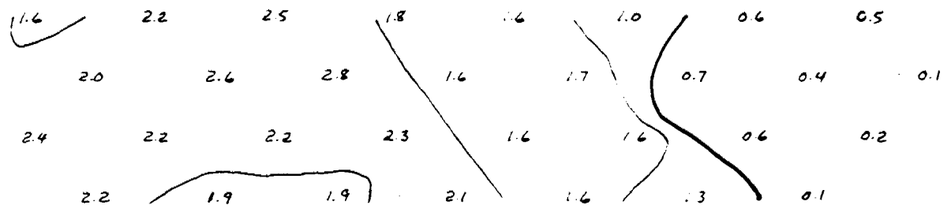
1.4 2.8 0.3 0.3 0.2 0.3 0.5 0.3 0.2 0.2 0.2 0.2 0.7 0.7 1.0 4.3 5.7 7.9 6.6
3.5 5.8 1.7 0.2 0.2 0.2 0.4 0.4 0.2 0.3 0.3 0.4 0.4 0.5 1.6 4.2 5.2 3.3 4.0 0.9
3.6 3.4 0.9 0.1 0.1 0.2 0.6 0.3 0.3 0.2 0.6 0.5 0.4 1.1 5.8 4.8 4.5 2.6 1.5
2.3 2.3 2.0 0.5 0.1 0.1 0.4 0.3 0.3 0.3 0.5 0.6 0.3 0.6 4.8 6.2 4.8 3.5 0.3

9.9 8.9 3.3 2.9 2.3 1.9 1.7 1.6 1.5 1.9 2.1 1.6 2.2 2.5 1.8 1.6 1.0 0.6 0.5
10.6 10.3 8.5 3.3 2.9 1.5 2.0 2.3 1.6 2.6 1.9 2.3 2.0 2.6 2.8 1.6 1.7 0.7 0.4 0.1
10.4 9.3 7.4 3.1 0.9 1.4 3.3 1.9 2.1 1.9 2.2 2.4 2.2 2.2 2.3 1.6 1.6 0.6 0.2
10.6 8.6 7.9 6.6 1.7 1.0 2.9 1.8 2.5 1.5 2.1 2.0 2.2 1.9 1.9 2.1 1.6 .3 0.1

3+00N 3+25N 3+50N 3+75N 4+00N 4+25N 4+50N 4+75N 5+00N 5+25N 5+50N 5+75N 6+00N







SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 6 E

M.F.

F.E.

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N

N-1
N-2
N-3
N-4

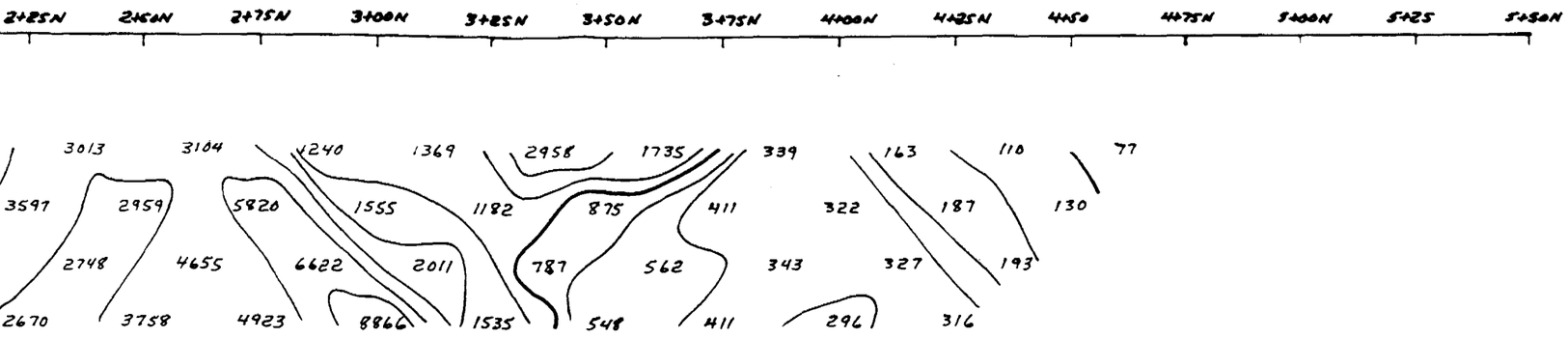
5684 9160 1959 492 1601 5085 18656 6705 1997 5990 10599 11490 9341 4364
5887 11964 2558 573 372 2261 5677 8687 3683 3416 8760 15197 13392 5250 6621
6475 21042 2850 984 585 863 2477 2585 4024 5169 5594 12983 18574 7509 6935
25200 9658 2171 1130 1230 1330 1066 1108 1354 4930 7320 9394 15041 10099 9454 8360

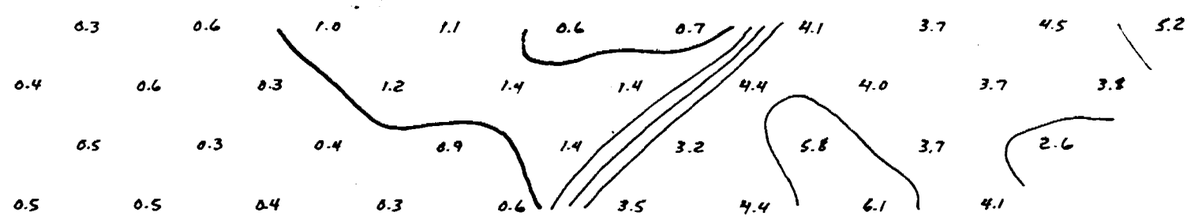
N-1
N-2
N-3
N-4

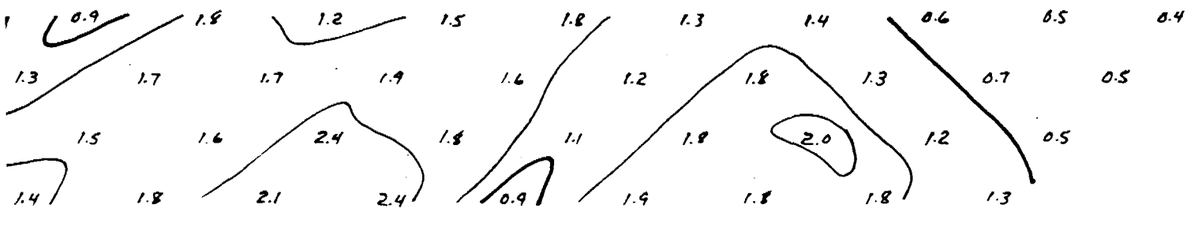
0.2 0.1 3.9 36.8 8.0 1.2 0.2 1.5 4.8 1.1 0.2 0.1 0.1 0.4 0.3
0.4 0.1 2.7 24.3 37.4 5.0 1.3 1.2 3.0 2.4 0.7 0.2 0.1 0.3 0.4
0.4 0.1 2.3 10.7 12.5 10.3 4.4 5.1 2.8 1.9 1.2 0.4 0.2 0.3 0.4 0.2
0.1 0.3 3.3 8.6 5.0 4.1 8.6 12.8 9.2 2.0 1.2 0.6 0.3 0.3 0.2 0.2

N-1
N-2
N-3
N-4

1.1 1.2 7.7 18.1 12.8 6.2 3.5 10.1 9.6 6.6 2.5 1.5 1.3 1.6 1.5
2.3 1.3 6.8 13.9 13.9 11.2 7.2 10.4 11.1 8.2 5.7 3.1 2.0 1.5 2.4
2.7 2.2 6.5 10.5 7.3 8.9 10.8 13.0 11.3 10.0 6.7 5.2 2.9 2.0 1.9 2.1
2.3 2.8 7.2 9.7 6.1 5.4 9.2 14.2 12.5 10.0 8.6 5.9 4.9 2.9 2.0 1.6







SPARTON RESOURCES INC

STRAW LAKE PROJECT

FORT FRANCIS, ONTARIO.

Ea

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

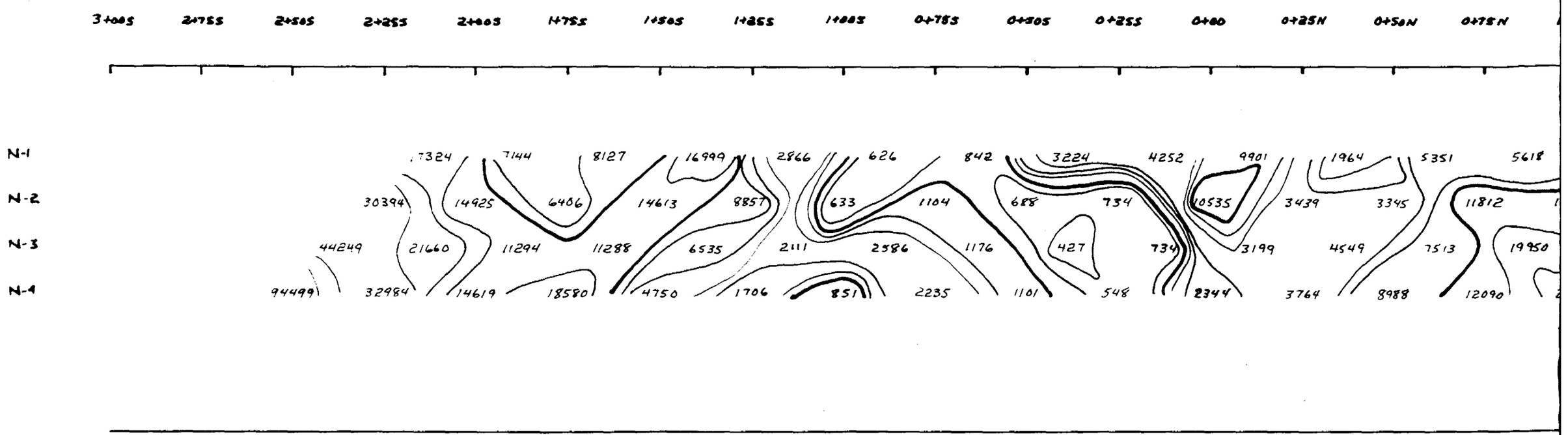
LINE: 7 E

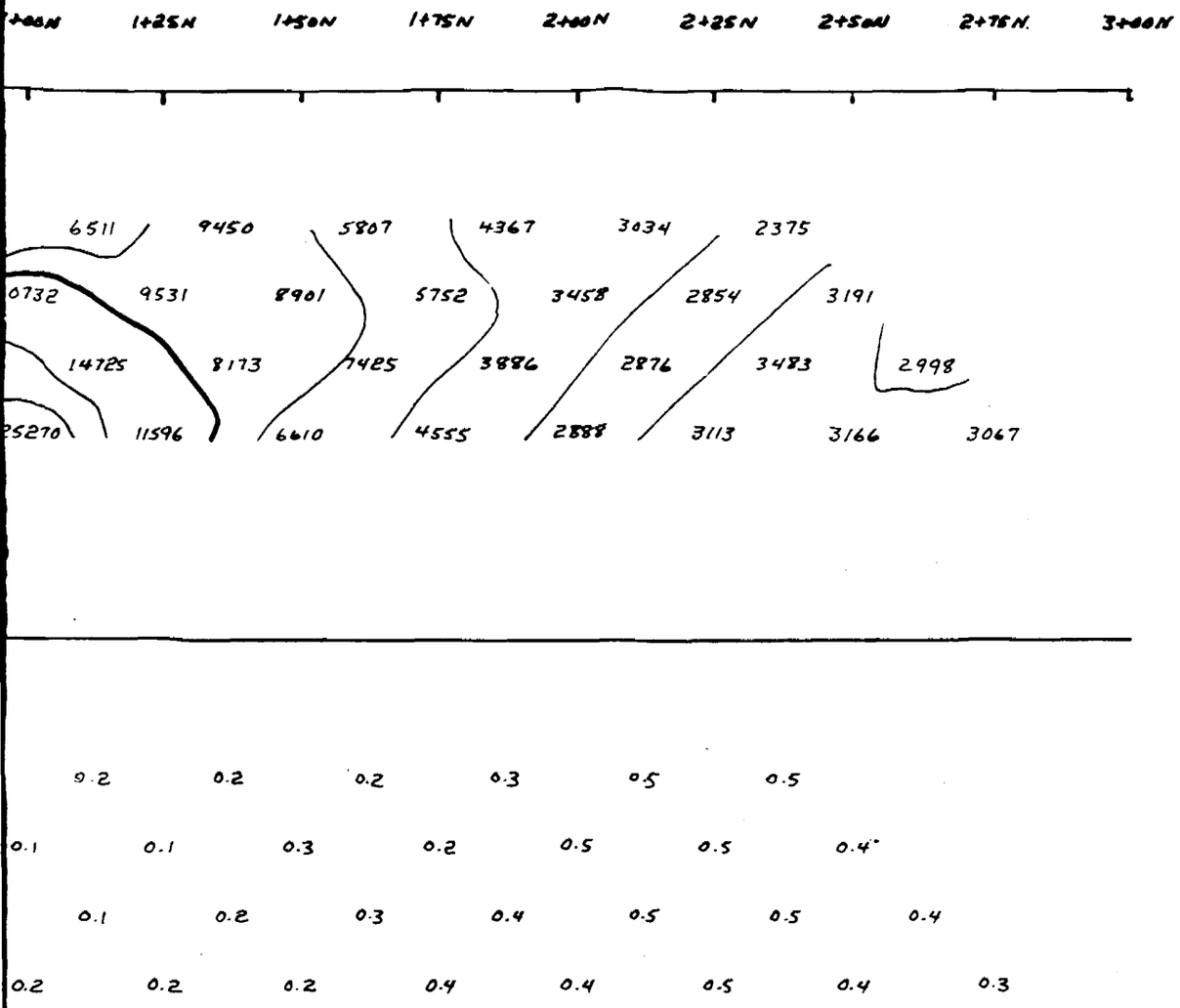
M.F.

F.E.

Mertens & MacNeil

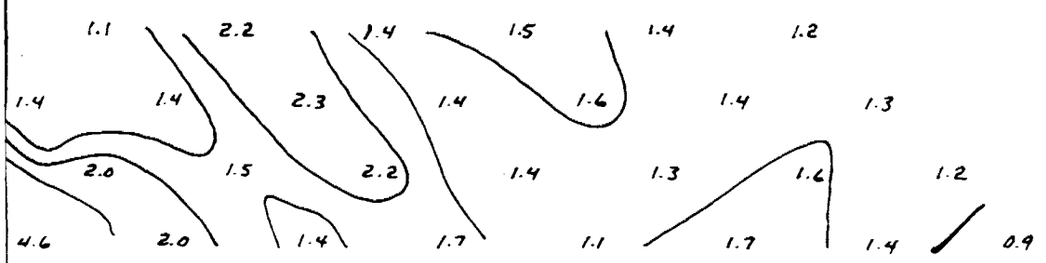
GEOPHYSICAL GROUND SURVEYS LTD.


3+00S
2+75S
2+50S
2+25S
2+00S
1+75S
1+50S
1+25S
1+00S
0+75S
0+50S
0+25S
0+00
0+25N
0+50N
0+75N
N-1
N-2
N-3
N-4
7324
7144
8127
16999
2866
626
842
3224
4252
9901
1964
5351
5618
30394
14925
6486
14613
8857
633
1104
688
734
10535
3439
3345
11812
44249
21660
11294
11288
6535
2111
2586
1176
427
734
3199
4549
7513
19950
94499
32984
14619
18580
4750
1706
851
2235
1101
548
2344
3764
8988
12090
0.1
0.6
0.3
0.1
0.5
21.6
11.7
3.3
1.3
0.5
5.0
0.8
0.2
0.1
0.2
0.6
0.2
0.3
14.2
4.6
14.4
22.2
0.6
2.9
2.6
0.3
0.1
0.1
0.3
0.4
0.7
4.1
2.9
5.6
18.3
15.3
3.6
2.1
1.0
0.2
0.1
0.1
0.9
0.2
1.1
5.3
1.2
4.0
4.5
9.3
4.5
2.9
1.0
0.6
1.6
4.1
2.8
1.9
1.5
13.5
9.4
10.5
5.7
4.5
9.8
4.3
1.1
1.5
3.6
3.6
3.2
2.9
9.0
5.1
9.9
16.3
6.5
10.0
8.8
4.0
0.9
3.2
3.2
4.0
4.4
8.6
7.5
6.6
7.8
11.2
11.5
9.7
7.3
4.1
1.1
2.8
1.3
3.6
5.4
9.0
1.0
8.9
5.0
5.1
10.5
11.1
8.9
6.9



Ca

M.F.



F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 8 E

Mertens & MacNeil

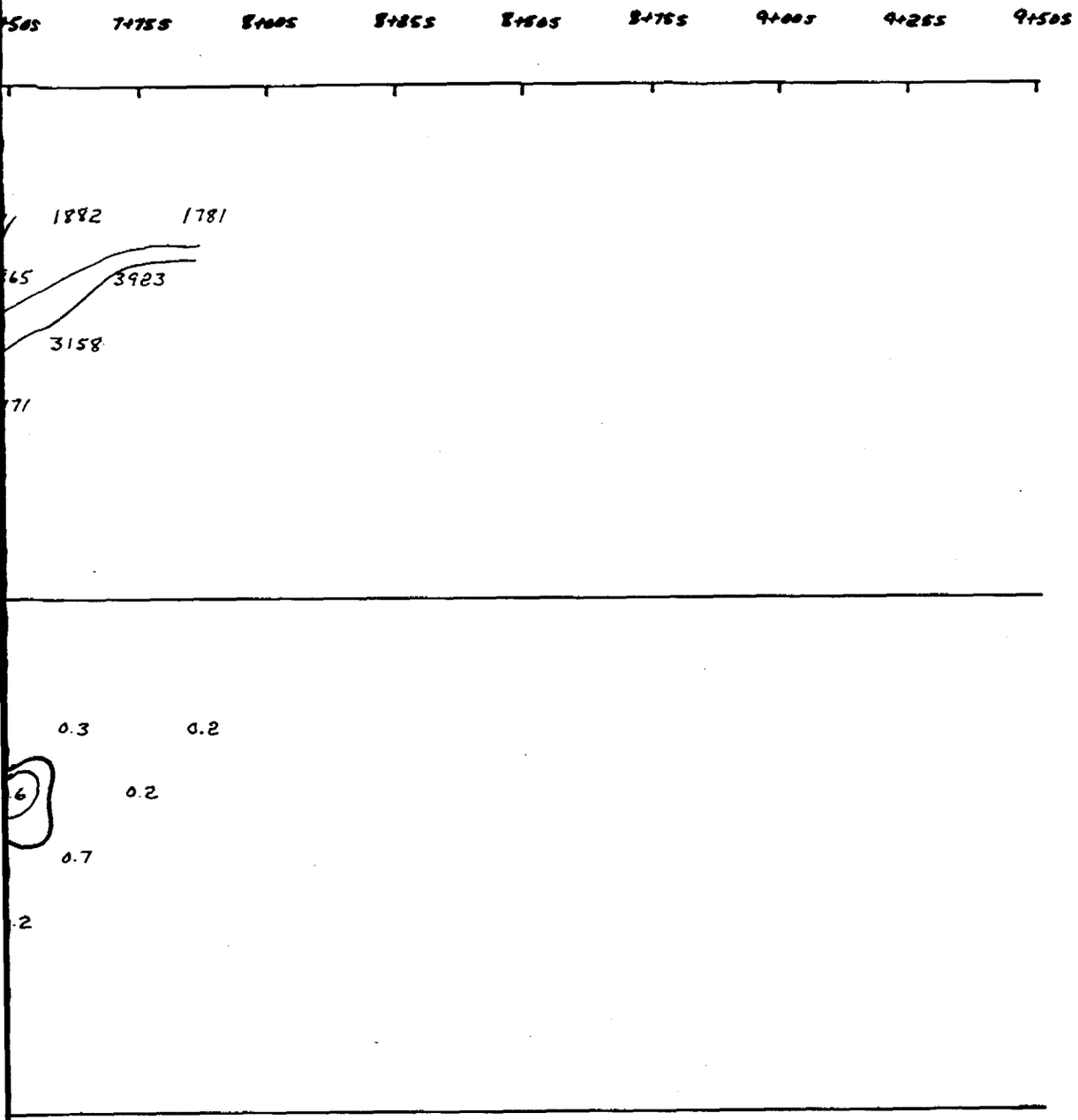
GEOPHYSICAL GROUND SURVEYS LTD.

3+755 4+005 4+855 4+505 4+785 5+003 5+863 5+503 5+763 6+003 6+255 6+505 6+785 7+005 7+385 7

N-1	30542	21652	22325	6412	12086	23132	22052	19237	9672	10625	11595	9167			
N-2	3693	36562	30000	9572	10322	24562	20625	22916	15960	12528	18680	3552			
N-3	5383	39484	16255	13880	24567	24440	20266	16229	16862	21504	18824	2416			
N-4	5397	21902	21586	29165	28327	26481	14513	15147	26505	18827	12994				

N-1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3			
N-2	0.1	0.1	0.5	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.7			
N-3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.8			
N-4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6				

N-1	0.7	1.5	1.6	1.9	1.8	1.7	1.7	0.9	0.8	1.3	2.3	3.2			
N-2	0.1	1.2	1.5	1.3	2.0	1.4	1.2	1.9	0.8	1.5	3.4	2.5			
N-3	0.4	1.5	1.7	1.6	1.6	1.6	1.4	1.1	1.4	3.2	3.2	1.9			
N-4	0.4	1.5	1.9	1.1	1.7	1.7	1.0	1.8	3.1	3.0	1.9				



LYNX CANADA

STRAW LAKE PROJECT

FORT FRANCIS, ONTARIO.

Ea

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 9 E

MF

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.

F.E.

2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N

N-1 10186 12543 9045 2467 8972 13710 684 1697 8418 7543 2671 10323 6713 4940 3895

N-2 26354 18958 15815 2322 8093 16278 1612 992 3238 6503 2565 6562 11625 6375 8499 5045

N-3 36240 18545 4275 7494 14142 1840 1806 1805 1973 2857 6289 7064 9262 9436 9215

N-4 29284 5119 11030 11011 1748 2170 2717 1376 825 4536 6612 5818 11938 8961 5668

N-1 0.1 0.3 0.3 2.9 0.3 0.1 18.0 4.7 6.3 1.3 2.8 0.2 0.1 0.3 0.3

N-2 0.1 0.2 0.2 4.0 0.7 0.2 6.7 9.0 2.3 1.5 3.9 1.1 0.2 0.1 0.2 0.2

N-3 0.1 0.2 2.0 0.8 0.5 6.7 4.3 4.5 6.5 4.3 1.3 0.9 0.2 0.1 0.1

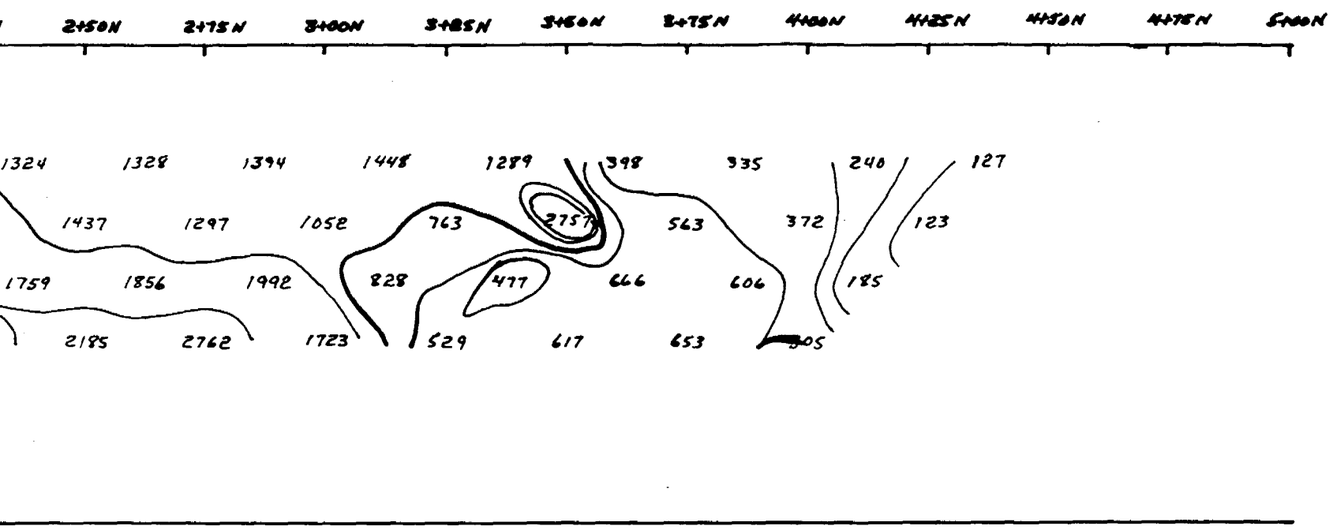
N-4 0.2 1.6 0.6 0.6 7.6 4.1 2.6 7.4 0.1 1.7 1.1 1.0 0.2 0.1 0.2

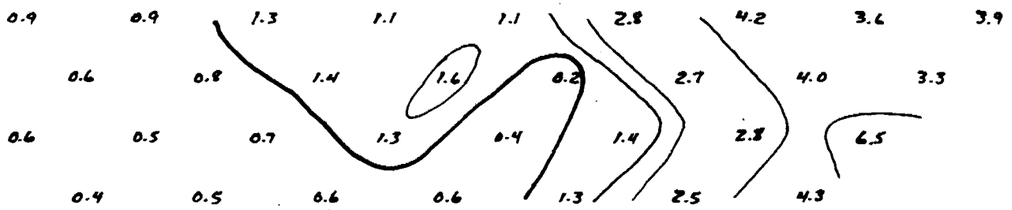
N-1 1.1 4.0 3.1 7.2 2.3 1.4 12.6 7.9 7.8 9.7 7.6 2.4 1.0 1.5 1.6

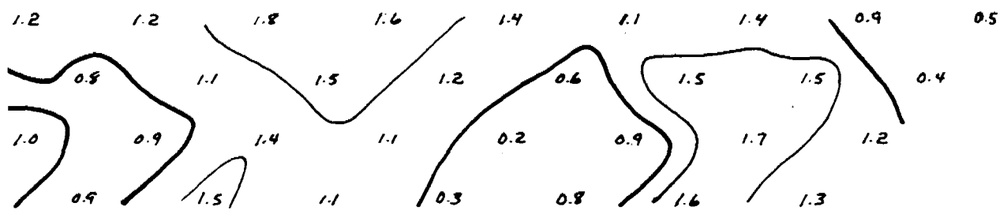
N-2 1.3 3.8 3.6 9.3 5.3 3.6 10.8 8.9 7.3 16.0 9.9 7.4 2.7 0.9 1.4 1.1

N-3 4.0 3.6 8.5 5.7 6.4 12.4 7.8 8.2 12.8 8.9 8.3 6.7 2.6 0.8 1.3

N-4 4.4 8.0 6.3 6.9 13.3 8.8 7.1 10.2 9.8 7.9 7.2 6.1 2.7 0.8 0.9







SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

Pd

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 10 E

M.F.

F.E.

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.

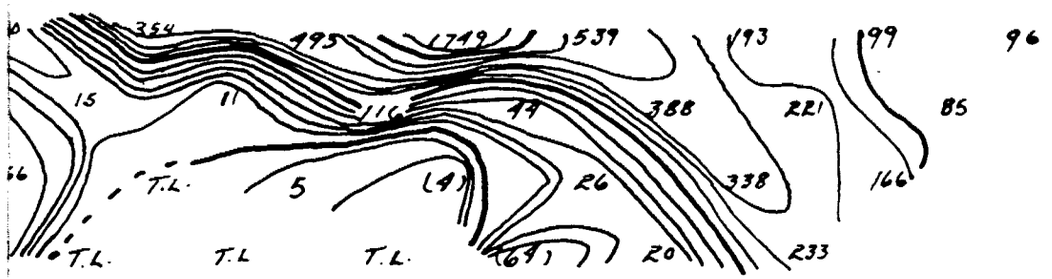
15+00S 14+75S 14+50S 14+25S 14+00S 13+75S 13+50S 13+25S 13+00S 12+75S 12+50S 12+25S 12+00S 11+75S 11+50S 11+25S 11+00S 10+75S 10+50S 10+25S 10+00S

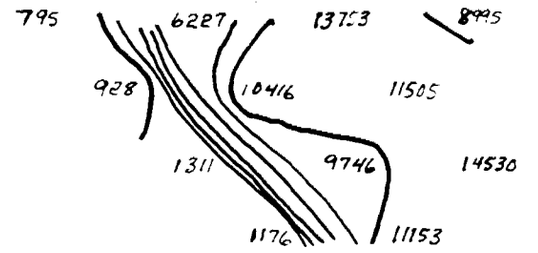
145 483 319 2007 10640 16268 27744 13278 3984 11790 4350 457 190 277 364 401 29 141 968 236
292 2300 12825 13054 13593 8973 11250 1302 233 1138 199 300 1135 202 46 564 404 124
302 254 2064 8094 6990 15005 20130 935 89 522 1063 165 682 770 95 322 440 197
215 195 1076 3667 7500 29687 1477 67 164 499 957 3016 333 244 526 366 215 95

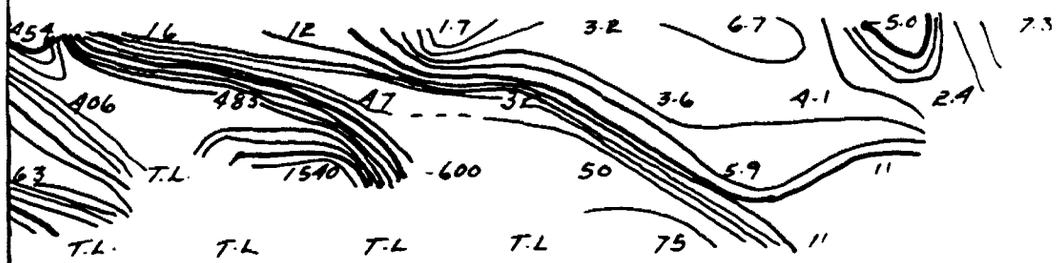
9.9 3.8 1.8 0.3 0.2 0.1 0.2 0.5 0.2 0.6 0.2 3.7 4.0 4.7 4.5 348.2 53.9 9.2 36.4
1.4 10.3 2.2 0.3 0.2 0.3 0.3 0.3 2.2 9.9 11.6 5.2 3.3 4.4 24.8 78.3 13.8 27.0 80.6
8.3 24.4 2.2 0.4 0.4 0.3 0.2 3.8 24.7 4.6 2.4 8.5 8.2 7.1 28.4 16.8 22.0 64.5
12.7 28.2 4.6 1.2 0.7 0.2 2.8 58.2 21.3 7.1 2.5 1.8 15.6 11.5 9.1 18.6 53.5 191.6

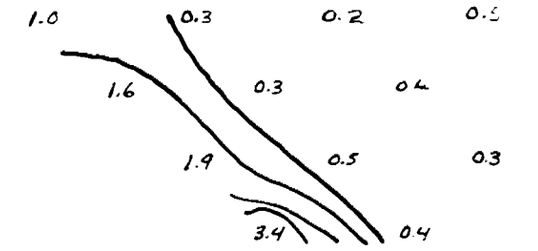
1.4 1.2 3.6 3.6 2.9 4.0 2.3 1.8 2.4 2.8 0.1 0.7 1.1 1.7 3.8 10.1 7.6 8.9 8.6
0.7 2.5 3.0 5.0 3.8 3.1 4.4 2.8 2.9 2.8 2.3 1.6 1.1 1.0 5.0 5.0 3.6 7.8 10.9 10.0
6.2 4.6 3.6 3.1 4.6 3.3 2.8 2.2 2.4 2.6 1.4 5.6 5.5 2.7 5.4 9.7 13.1
4.0 5.5 5.0 4.3 5.1 5.6 4.2 3.9 3.5 3.7 2.4 5.5 5.2 2.8 4.8 6.8 11.5 17.4

9+80S 8+75 8+50S 8+25S 8+00S 7+75S 7+50S 7+25S 7+00S 6+75S 6+50S 6+25S 6+00S 5+75S 5+50S 5+25S 5+00S

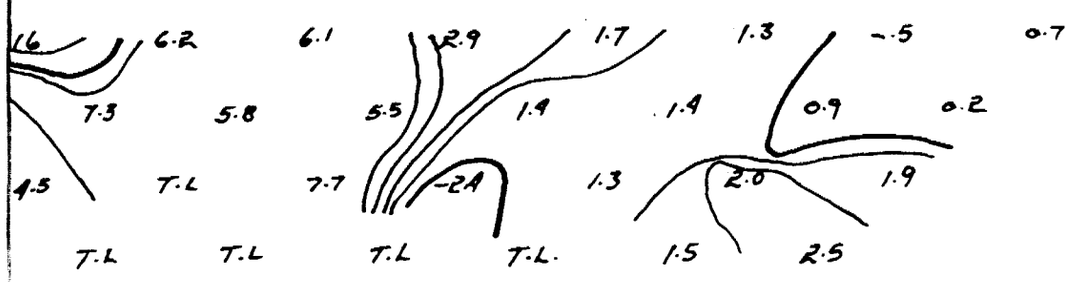


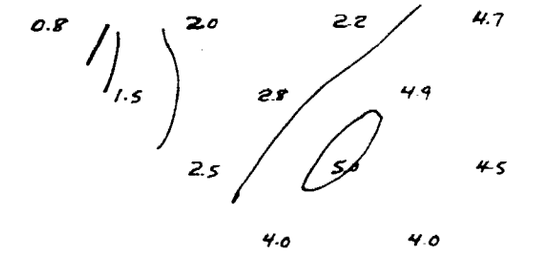






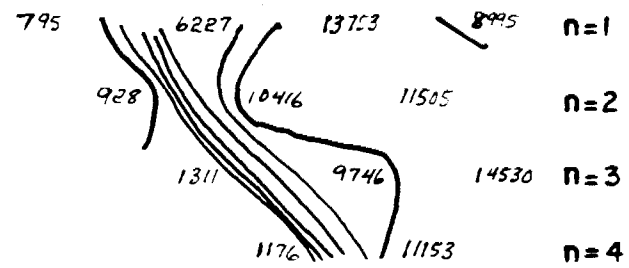
OPEN WATER



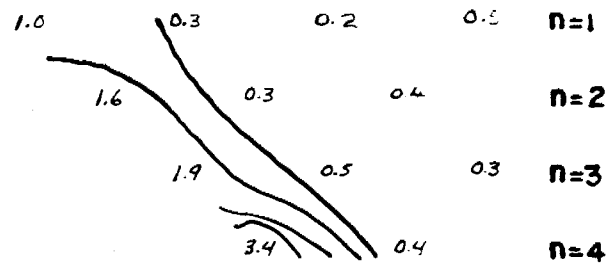


7+00S 6+75S 6+50S 6+25S 6+00S 5+75S 5+50S 5+25S 5+00S

ρ_a

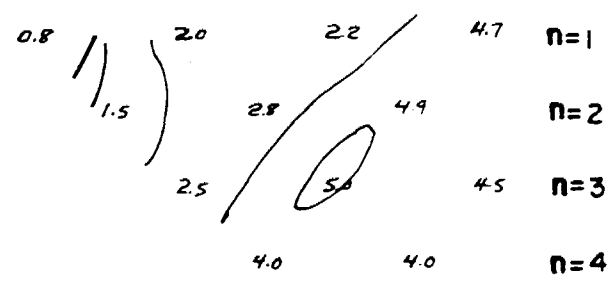


MF



OPEN WATER

C·F·E·



SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

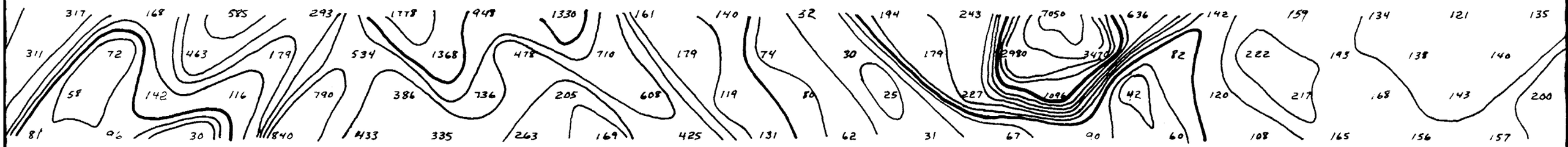
LINE : 19 E

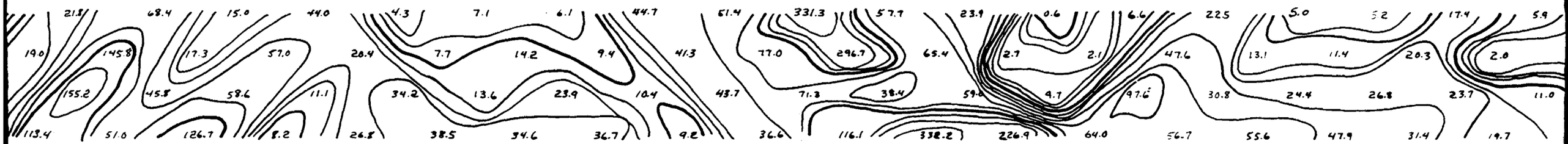
LEGEND: T.L. Too Low

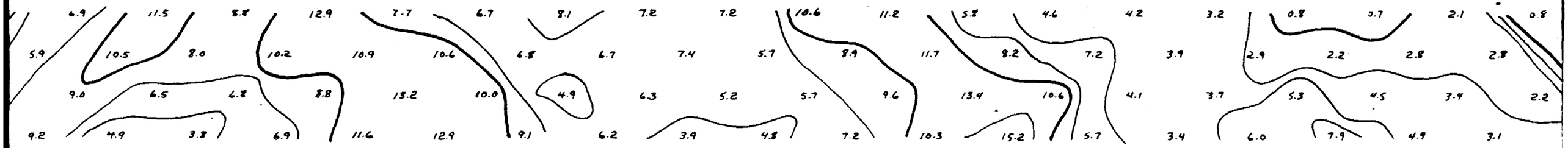
Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD·

16+50S 16+25S 16+00S 15+75S 15+50S 15+25S 15+00S 14+75S 14+50S 14+25S 14+00S 13+75S 13+50S 13+25S 13+00S 12+75S 12+50S 12+25S 12+00S 11+75S 11+50S

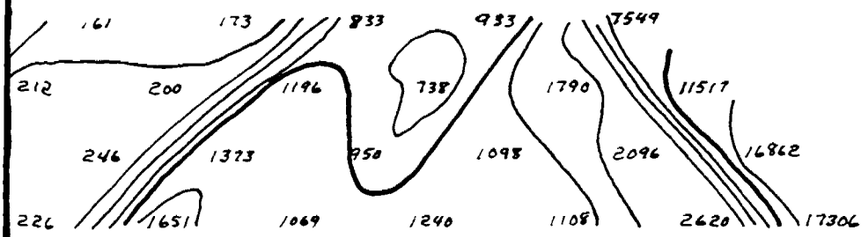
11+25S 11+00S 10+75S 10+50 10+25S 10+00S 9+75S 9+50S 9+25S 9+00S 8+75S 8+60S 8+25S 8+00S 7+75S 7+50S 7+25S 7+00S 6+75S



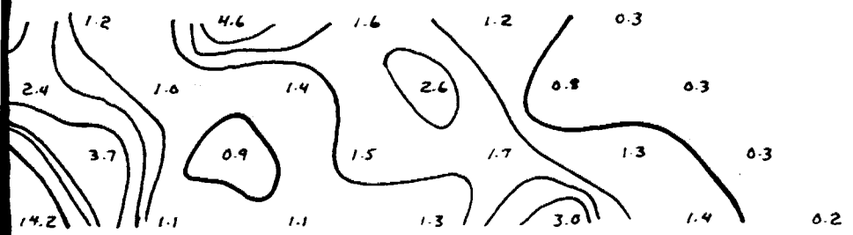




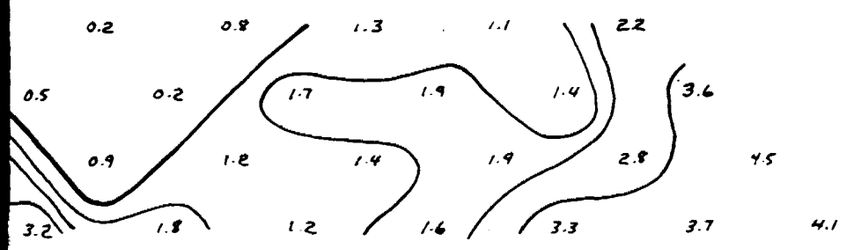
6+50S 6+25S 6+00S 5+75S 5+50S 5+25S 5+00S 4+75S 4+50S 4+25S 4+00S 3+75S



E a



M.F.



F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0 m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 20 E

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.

15+00S 14+75S 14+50S 14+25S 14+00S 13+75S 13+50S 13+25S 13+00S 12+75S 12+50S 12+25S 12+00S 11+75S 11+50S 11+25S 11+00S

4260 15185 9625 1919 922 611 640 280 2495 7125 7838 14535 22866 1921 194 347 285
7856 5175 12031 3221 3248 1091 795 620 1467 4125 2219 13875 24688 1862 220 592 122 71
13585 8597 5517 7229 8376 3069 1267 606 3151 2665 3040 3285 19079 1995 254 617 168 23
20805 13680 7584 3971 16570 6517 2898 819 2774 5706 2329 3996 4085 1569 904 608 147 46 20

1.0 0.1 0.1 0.3 0.9 2.0 2.7 5.7 0.8 0.3 0.6 0.4 0.1 1.1 10.8 3.2 10.5
0.8 0.7 0.1 0.3 0.2 0.2 1.8 1.8 1.2 0.5 2.3 0.6 0.3 1.6 14.5 4.9 21.3 73.0
0.6 0.7 0.3 0.2 0.1 0.4 0.3 3.6 0.9 1.1 0.9 2.3 0.5 1.6 13.8 5.5 28.0 147.0
0.4 0.6 0.6 0.4 0.1 0.2 0.6 2.1 1.0 0.6 1.8 1.9 2.0 0.2 22.0 7.6 40.8 56.5 210.0

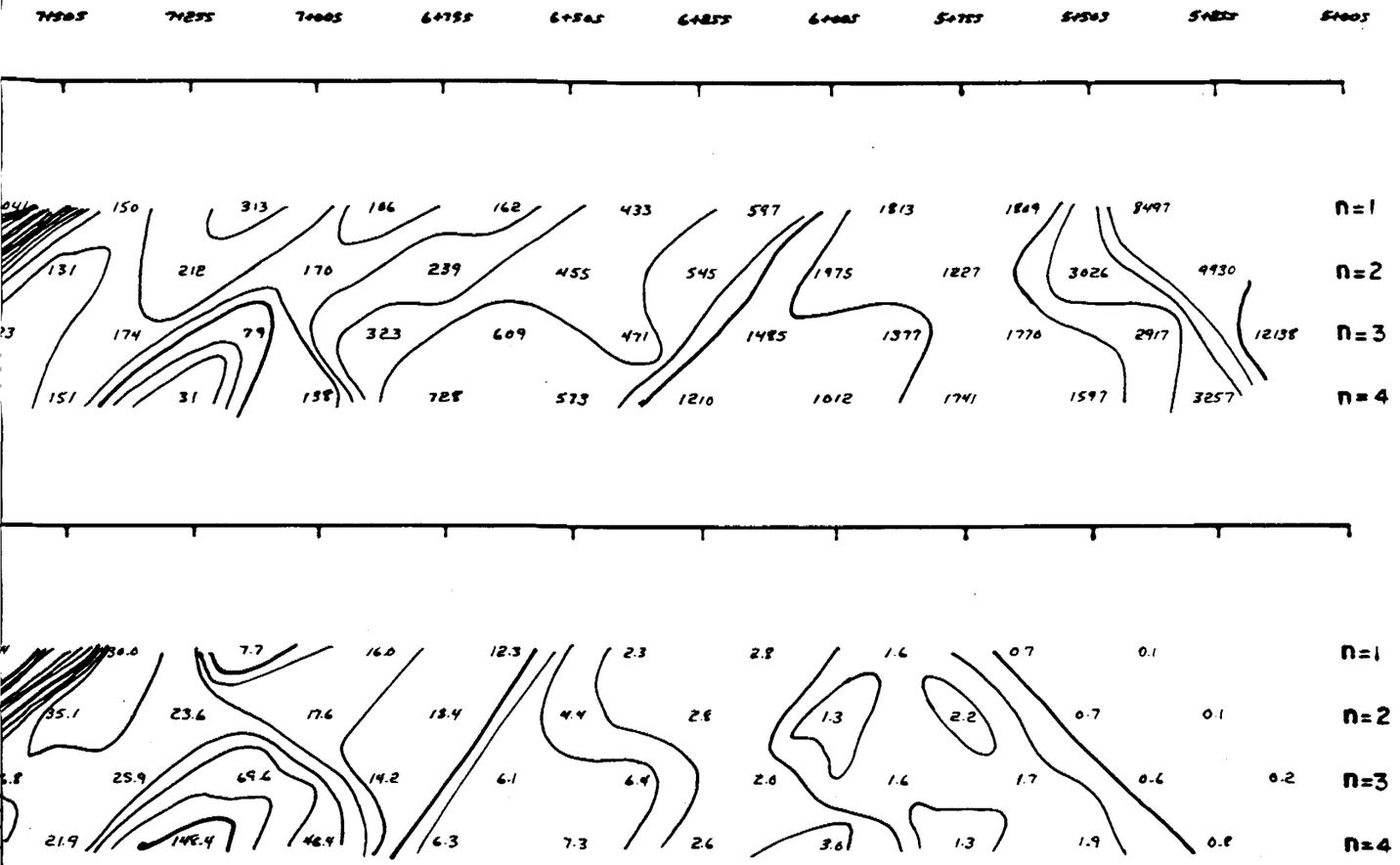
4.1 2.2 0.3 0.6 0.8 1.2 1.7 1.6 2.0 2.3 5.0 5.7 2.8 2.2 2.1 1.1 3.0
6.5 3.4 0.6 1.1 0.8 0.2 1.4 1.1 1.8 1.9 5.1 7.9 6.5 2.9 3.2 2.9 2.6 5.2
8.5 6.1 1.7 1.4 0.9 1.1 0.4 2.2 2.9 2.9 2.7 7.4 8.9 3.2 3.5 3.4 4.7 3.4
7.6 8.1 4.6 1.8 1.1 1.3 1.8 1.7 2.7 3.7 4.1 7.7 8.2 7.5 6.6 4.6 6.0 2.6 4.2

10+00S 10+45S 10+00S 9+75S 9+50S 9+25S 9+00S 8+75S 8+50S 8+25S 8+00S 7+75S 7+50S 7+25S 7+00S 6+75S 6+50S 6+25S 6+00S 5+75S 5+50S 5+

332 205 398 1425 469 1496 233 16 4156 3178 9370 150 313 186 162 433 597 1813 1869 8497
179 457 337 1703 787 335 307 38 13 4390 4517 131 218 170 239 455 545 1975 1227 3026
262 517 1165 977 518 105 99 32 17 7125 123 174 79 323 609 471 1485 1377 1776 2917
287 264 1533 640 526 193 85 103 52 26 151 31 138 728 573 1210 1612 1741 1597

25.6 37.6 13.8 6.0 14.7 5.1 30.5 243.8 1.5 2.1 0.4 0.4 7.7 16.0 12.3 2.3 2.8 1.6 0.7 0.1
52.0 15.3 21.4 4.0 8.9 26.0 16.9 43.3 600.0 1.9 1.8 0.7 23.6 17.6 13.4 4.4 2.8 1.3 2.2 0.7
32.8 14.5 7.0 7.2 15.1 66.7 11.1 134.4 1.2 2.3 26.8 25.9 69.4 14.2 6.1 6.4 2.6 1.6 1.7 0.6
10.1 31.9 5.3 12.0 17.7 31.6 20.0 46.6 63.5 2.0 92.1 21.9 148.4 46.4 6.3 7.3 3.6 1.3 1.9

8.5 7.7 5.5 8.5 6.9 7.7 7.1 3.9 6.2 6.8 4.3 5.7 4.5 2.4 1.7 2.0 1.0 1.7 2.9 1.2 1.2
9.3 7.0 7.2 6.8 6.5 8.7 5.2 1.3 7.8 8.5 8.0 6.5 4.6 5.0 3.0 3.2 2.0 1.5 2.6 2.7 2.0
8.6 7.5 8.2 7.0 7.8 7.0 1.1 4.3 7.4 8.8 9.4 3.3 4.5 5.5 4.6 3.7 3.0 2.9 2.2 3.6 1.7
2.9 8.3 8.6 7.7 9.3 6.1 1.7 4.8 3.3 6.2 16.9 5.8 3.3 4.6 6.4 4.6 4.2 3.2 3.0 2.2 3.6



SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 21E

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.

154505 154855 155205 155755 156105 156455 156805 157155 157505 157855 158205 158555 158905 159255 159605 159955 160305 160655 161005 161355 161705 162055 162405 162755 163105 163455 163805 164155 164505 164855 165205 165555 165905 166255 166605 166955 167305 167655 168005 168355 168705 169055 169405

10+75S 10+50S 10+25S 10+00S 9+75S 9+50S 9+25S 9+00S 8+75S 8+50S 8+25S 8+00S 7+75S 7+50S 7+25S 7+00S 6+75S 6+50S 6+25S 6+00S 5+75S

431 1198 600
79 249 439
35 175 533
15 22 305

226 682 8244 252
707 291 2445 434 720
954 712 323 955
556 254 91 593 555

1122 101 119 10048 13200
986 27 548 12405 11100
437 913 15 525 16007
170 280 17 586 17783

11020 5654 523 431 126 397 7679 3319 992
7562 252 1785 113 162 1298 2031 960
11422 325 1408 152 148 419 372 550 189
465 1790 114 212 322 116 173 997

18.6 9.8 15.7 34.5 3.8 2.7 13.1 4.1 16.8 2.4 0.5 0.4 0.4 0.6 7.5 5.4 47.6 33.0 1.0 0.5 5.4
12.1 34.9 31.0 11.2 24.4 3.1 6.9 7.1 6.2 59.2 7.0 0.5 0.5 0.6 17.1 4.2 100.9 34.0 6.9 3.7 6.0
214.3 37.7 19.9 9.0 9.8 9.9 5.0 12.3 18.2 166.8 7.1 0.4 0.4 16.6 5.8 89.5 58.8 6.7 20.7 22.0 2.5
26.7 309.1 26.6 21.2 3.4 41.8 7.8 9.5 33.5 22.4 100.0 7.5 0.3 10.3 4.9 115.8 40.1 20.8 29.3 54.9 11.0

8.0 10.6 9.4 7.8 6.4 8.8 3.3 4.6 1.7 2.7 4.9 5.9 4.3 3.3 3.9 5.6 6.0 13.1 7.7 1.8 5.4
7 8.7 13.6 7.9 7.1 7.7 8.0 5.1 5.6 1.6 3.8 6.8 5.3 4.4 4.3 7.2 11.4 5.5 9.0 7.5 5.8
7.5 6.6 10.6 8.6 7.0 3.8 4.8 5.4 5.7 2.5 3.7 6.2 4.9 5.4 7.4 13.6 8.7 2.8 7.7 12.1 4.7
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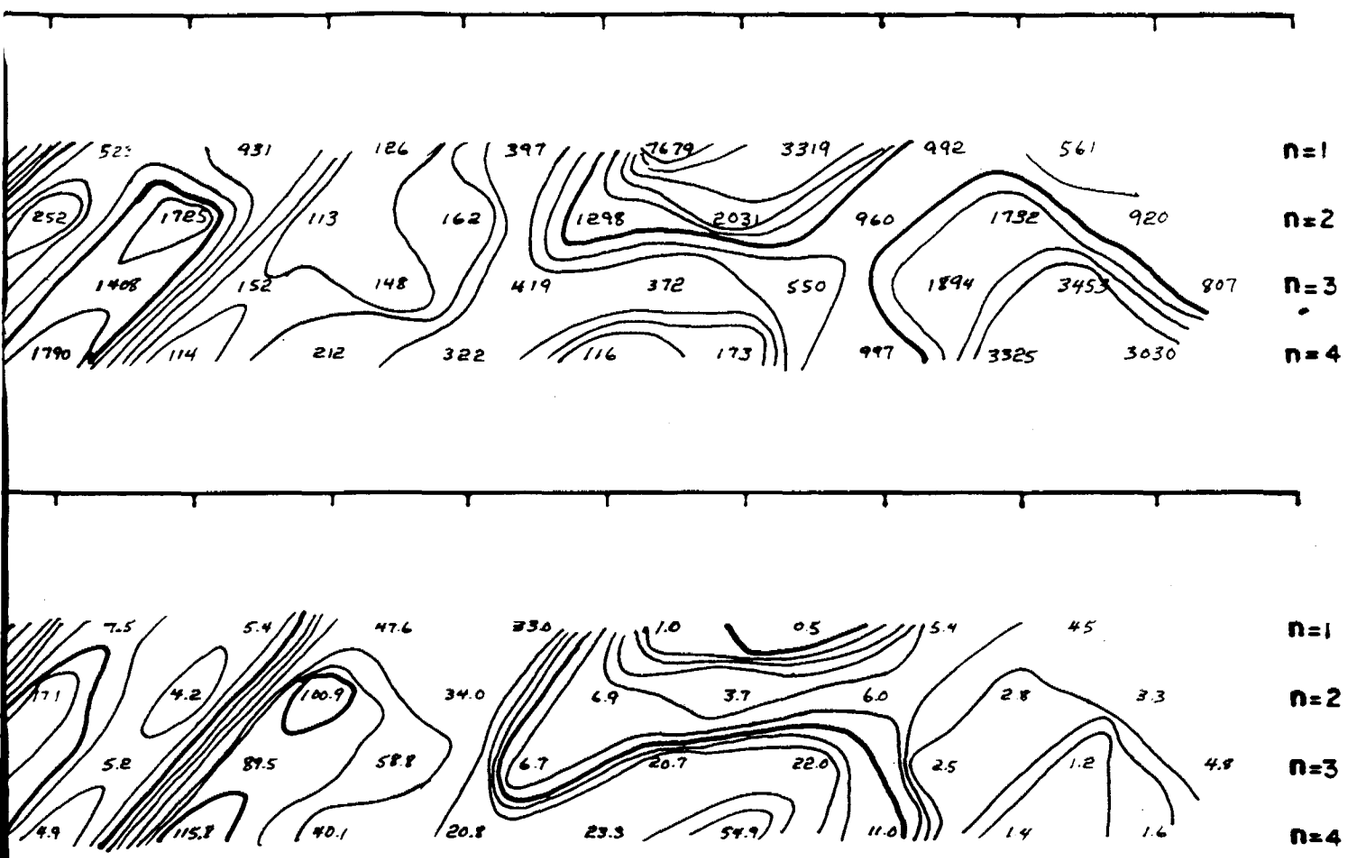
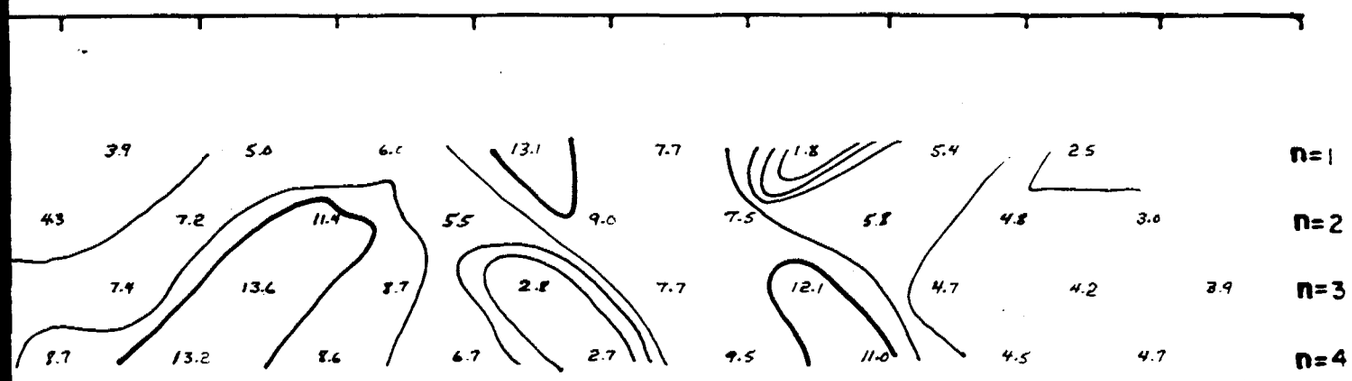




SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 22E

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD·

16+50S 16+25S 16+00S 15+75S 15+50S 15+25S 15+00S 14+75S 14+50S 14+25S 14+00S 13+75S 13+50S 13+25S 13+00S 12+75S 12+50S 12+25S 12+00S 11+75S

N-1
N-2
N-3
N-4

28756 19385 15295 8102 5998 6259 4135 1977 2584 479 499 742 2894 8934
31165 27364 16556 12132 10996 5625 6838 2702 1572 1016 578 1675 3978 4375 6858
68090 22658 21236 12092 15994 10728 24273 4526 2939 682 973 1810 6868 5994 3425
76000 46729 15200 19529 12797 14378 12695 5795 4599 1039 312 3336 8241 9025 4225 5177

N-1
N-2
N-3
N-4

0.1 0.2 0.2 0.3 0.3 0.5 0.7 3.0 4.7 4.6 0.8 0.3 3.6 0.6
0.1 0.2 0.3 0.3 0.2 0.3 0.4 1.4 1.8 2.3 0.2 0.1 0.2 1.4
0.1 0.2 0.2 0.4 0.3 0.2 0.1 0.6 0.8 1.0 0.8 0.3 1.05 0.4 2.2
0.1 0.1 0.4 0.3 0.4 0.2 0.2 0.3 0.6 1.6 1.5 0.7 0.2 0.3 1.7 1.4

N-1
N-2
N-3
N-4

3.9 3.6 3.5 2.3 1.8 3.0 2.9 4.3 4.5 2.2 0.4 0.2 3.3 5.1
4.4 4.6 4.7 3.4 2.4 1.7 2.8 3.7 2.8 2.3 0.1 0.1 2.5 9.7
6.0 5.0 5.2 4.3 3.9 1.7 1.3 2.7 2.5 0.7 0.8 0.5 10.1 2.6 7.5
6.3 6.0 5.5 5.0 4.9 3.3 1.9 2.0 2.8 1.7 1.2 2.2 1.8 3.0 7.3 7.1

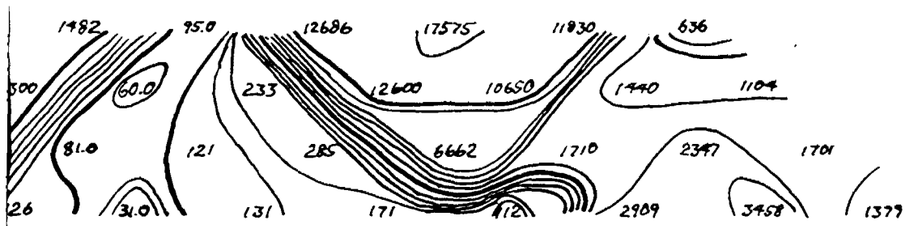
11+50S 11+25S 11+00S 10+75S 10+50S 10+25S 10+00S 9+75S 9+50S 9+25S 9+00S 8+75S 8+50S 8+25S 8+00S 7+75S 7+50S 7+25S 7+00S 6+75S

8900 9108 676 722 1444 5146 5621 1034 1948 4743 2375 1603 1027 453 2056 13688 18511 7040 3966 536
14953 336 482 1135 2294 1869 2563 1406 3906 4131 1790 482 398 275 2335 16764 7298 5193 472 1300
2587 410 205 629 1247 643 1722 2795 2222 2986 2390 459 187 301 240 2661 19403 7647 579 1865
283 214 303 605 302 604 1821 3594 2023 1615 482 197 184 315 229 2114 15405 770 2358 126

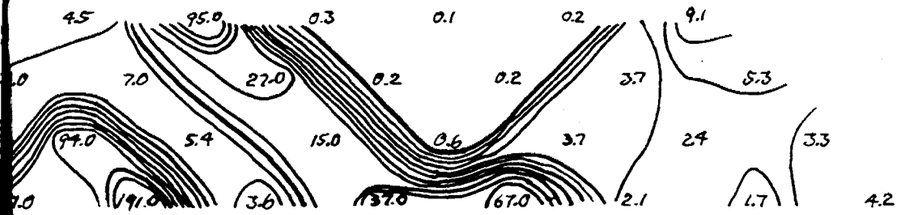
1.4 0.8 3.7 2.2 2.6 1.1 1.0 7.3 3.0 3.0 3.0 4.2 4.8 10.0 1.0 0.3 0.2 0.6 0.6 11.0
0.7 16.0 5.6 3.3 2.0 4.0 3.0 6.1 2.0 2.0 4.0 14.0 17.0 21.0 1.4 0.3 0.6 0.7 16.0 6.0
23.0 40.0 7.6 3.2 10.0 4.1 3.1 5.0 3.0 2.0 12.0 39.0 25.0 25.0 1.61 0.3 0.5 15.0 4.1
28.0 44.0 35.0 4.8 24.0 9.1 4.1 3.6 4.8 5.0 12.0 27.0 34.0 23.0 25.0 1.6 0.3 11.0 4.0 81.0

9.8 7.4 2.5 1.6 3.7 5.5 5.5 7.6 5.5 6.3 6.5 6.7 4.9 4.6 2.1 3.9 4.5 4.5 2.4 5.8
10A 6.6 2.7 3.8 4.3 7.5 7.7 8.6 8.0 6.7 6.2 6.8 6.6 5.8 3.2 4.3 4.4 3.4 7.7 7.7
9.3 9.5 8.2 4.8 4.0 6.7 7.2 8.8 11.0 8.2 7.4 5.5 7.2 7.5 5.9 2.8 4.1 3.8 8.6 7.8
8.0 9.3 10.6 2.9 7.2 5.5 7.8 10.7 9.8 7.7 5.8 5.3 6.3 7.1 5.8 3.4 4.3 8.8 8.8 6.4

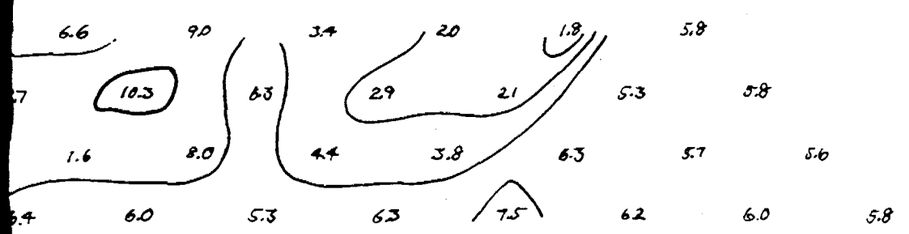
7+75s 6+50s 6+25s 6+00s 5+75s 5+50s 5+25s 5+00s 4+75s 4+50s 4+25s 4+00s 3+75s



C.P.



M.F.



F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 23 E

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.

16+50S 16+25S 16+00S 15+75S 15+50S 15+25S 15+00S 14+75S 14+50S 14+25S 14+00S 13+75S 13+50S 13+25S 13+00S 12+75S 12+50S 12+25S 12+00S

543 136 151 334 1095 2574 10949 2201 9395 4479 2285 966 2446 1470
162 737 219 323 495 660 2250 5596 2906 9219 2625 805 2789 7772
111 162 1125 367 447 199 518 1990 1264 5684 5275 767 4637 8197 9902
206 88.0 186 1260 508 163 193 365 3023 2359 6729 1980 3706 11292 10078

4.8 5.9 2.6 1.5 1.6 1.7 0.2 0.6 0.3 0.3 1.0 2.1 0.5 1.2
9.9 4.3 3.7 0.3 1.1 3.0 1.9 0.3 0.4 0.2 1.0 1.1 0.6 0.3
29.0 12.0 2.9 3.8 1.1 7.0 6.2 2.8 1.0 0.2 0.3 2.0 0.3 0.4 0.3
18.0 41.0 12.0 2.3 2.4 15.0 19.0 5.3 0.8 0.1 0.2 0.7 0.4 0.3 0.3

2.6 0.8 0.4 0.5 1.7 4.5 2.6 1.4 2.3 1.3 1.5 1.0 1.2 1.8
1.6 3.2 0.8 0.1 0.6 2.0 3.1 1.8 1.3 1.7 1.8 0.9 1.7 2.5
3.2 2.0 3.3 1.4 0.5 2.3 3.2 4.1 1.3 1.0 1.4 1.2 1.6 2.9 2.6
3.6 3.6 2.3 2.9 1.2 2.4 2.0 1.9 2.4 2.0 1.6 1.0 1.6 3.1 2.9

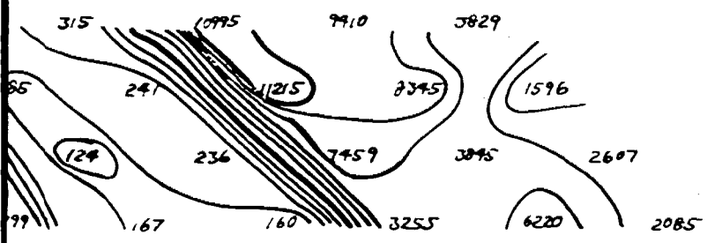
11+50S 11+25S 11+00S 10+75S 10+50S 10+25S 10+00S 9+75S 9+50S 9+25S 9+00S 8+75S 8+50S 8+25S 8+00S 7+75S 7+50S 7+25S 7+00S 6+75S 6+50S

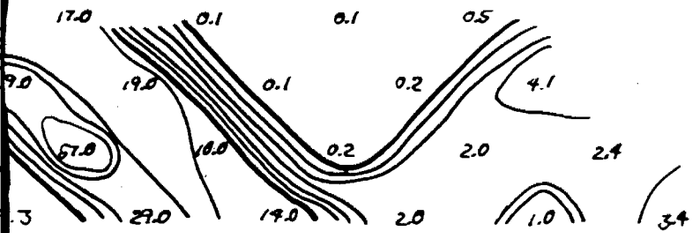
22 12971 25630 6501 5499 599 2004 8550 4648 3563 11685 5154 602 959 239 870 9678 11746 2646 892 564 213
9834 31289 19375 3310 496 202 1380 9722 6992 8250 12150 612 914 764 154 735 16140 8603 1064 917 1434
19395 26223 7258 217 227 109 1329 11083 13575 7917 1198 634 529 559 102 866 14697 2396 1021 1746 1252
3522 17654 8460 351 119 143 119 1217 18296 13119 955 969 325 425 406 100 720 3296 2006 1734 1322

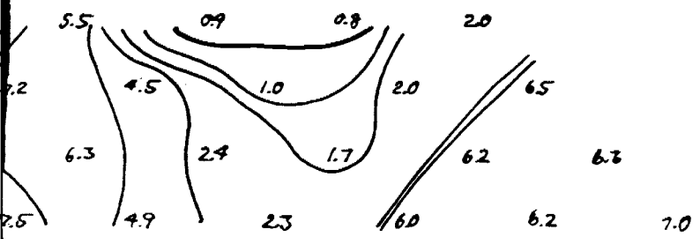
0.3 0.1 0.5 0.6 5.1 .7 0.6 1.1 1.2 9.4 1.6 13.0 2.7 6.7 1.3 0.3 0.3 1.5 2.0 2.7 19.0
0.6 0.2 0.3 1.3 6.7 10.0 3.6 0.7 0.9 0.8 8.9 16.0 8.9 5.4 4.5 0.1 0.2 0.5 3.0 4.0 3.1
0.3 0.3 0.7 22.0 21.0 20.0 5.6 0.7 0.6 9.1 8.6 9.7 17.0 5.6 2.0 0.8 0.3 1.7 3.1 3.3 7.0
1.3 0.4 0.8 17.0 41.0 47.0 41.0 6.5 0.6 9.8 10.0 11.0 31.0 20.0 9.1 3.0 2.9 1.4 2.0 3.6 7.2

4.5 3.2 3.5 3.2 3.0 3.5 5.2 5.3 4.1 5.1 8.5 7.9 2.6 1.6 1.1 2.9 3.4 4.1 1.8 1.5 3.0
4.9 5.9 5.5 4.3 3.3 2.1 4.9 7.5 6.5 6.7 11.5 8.9 8.1 4.1 0.7 0.1 3.9 4.6 3.0 3.5 4.5
6.4 6.6 5.4 4.8 4.7 2.2 7.4 7.9 8.2 11.0 10.3 8.9 9.2 3.1 0.2 0.7 5.1 4.0 3.2 5.7 8.5
4.6 6.3 6.5 5.8 4.9 6.7 4.9 7.9 10.5 10.9 8.8 10.8 9.9 8.5 3.7 0.3 2.1 5.6 4.1 6.2 9.5

6+25S 6+00S 5+75S 5+50S 5+25S 5+00S 4+75S 4+50S 4+25S 4+00S 3+75S







SPARTON RESOURCES INC

Cu

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0 m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

M.F.

LINE: 24 E

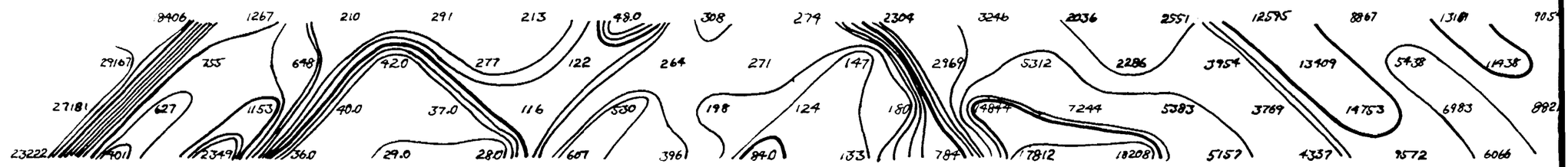
F.E.

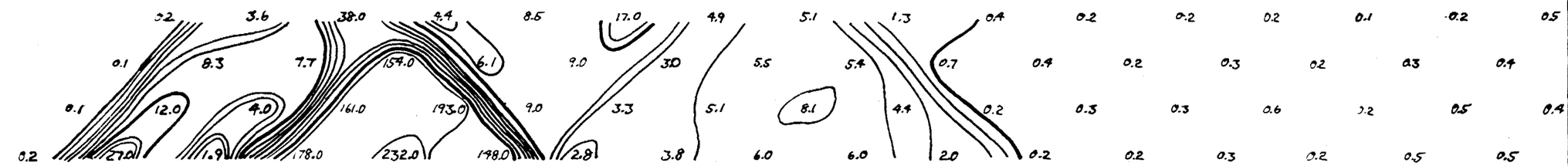
Mertens & MacNeil

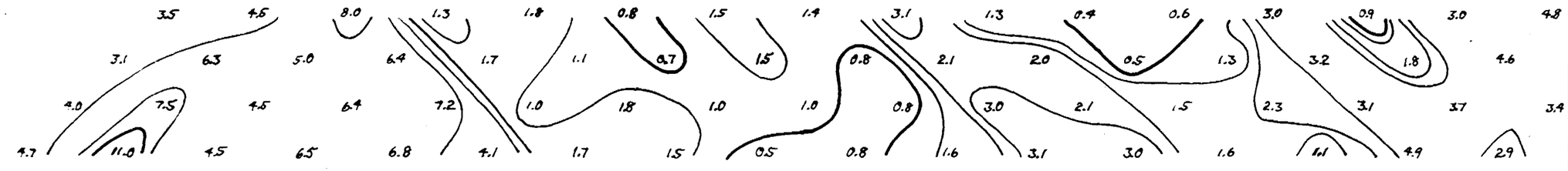
GEOPHYSICAL GROUND SURVEYS LTD.

16+50S 16+25S 16+00S 15+75S 15+50S 15+25S 15+00S 14+75S 14+50S 14+25S 14+00S 13+75S 13+50S 13+25S 13+00S 12+75S 12+50S 12+25S 12+00S 11+75S

N-1 N-2 N-3 N-4







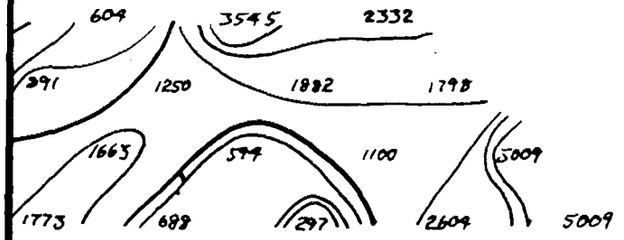
11+25S 11+00S 10+75S 10+50S 10+25S 10+00S 9+75S 9+50S 9+25S 9+00S 8+75S 8+50S 8+25S 8+00S 7+75S 7+50S 7+25S 7+00S 6+75S 6+50S 6+25S

5055 5211 9896 4358 4924 1995 1071 10088 1321 16625 4481 17758 466 710 322 972 18289 1866 1826 820 241 243
3004 6875 12164 4229 1587 633 1308 8391 23656 10988 12375 2054 710 140 366 613 30136 5094 733 31.0 316
6019 6274 10391 7394 1330 549 689 755 15734 13617 24700 1663 73.0 20.0 92.0 206 97.0 1096 1710 210 25.0 1069
6713 9203 6914 2434 480 618 292 1140 7802 2866 4142 507 77.0 53.0 73.0 29.0 204 1948 532 179 192

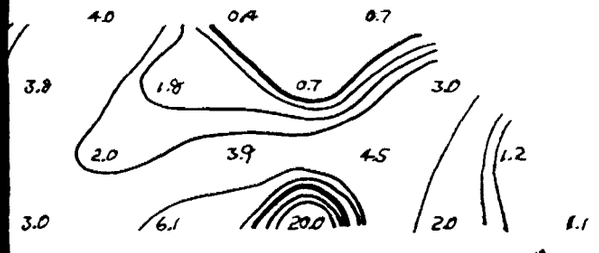
1.1 1.1 0.7 2.0 0.8 4.1 1.0 0.4 0.9 0.3 1.1 3.4 28.0 102.0 19.0 0.9 2.2 1.0 1.3 30.0 10.8 12.0
0.9 0.9 0.7 1.8 5.2 12.0 6.6 0.8 0.3 0.7 0.8 6.6 376.0 279.2 12.0 1.8 0.7 0.3 3.4 3 2 14.0
0.4 1.0 0.6 0.9 8.6 13.0 11.0 13.0 0.5 0.5 0.4 7.7 96.0 213.0 49.0 23.0 7.2 0.4 1.3 3.8 106.0 5.1
0.8 0.7 1.0 4.9 21.0 11.0 27.0 9.5 1.1 4.2 2.7 7.1 59.0 56.0 55.0 120.0 4.9 1.2 1.5 26.0 21.0

5.7 5.5 7.2 8.9 4.1 8.2 8.7 4.3 4.3 5.7 5.0 7.0 13.0 7.3 6.1 0.9 3.3 1.8 2.3 2.5 2.5 2.8
4.4 6.4 8.4 7.8 8.3 7.8 8.7 6.5 7.3 7.5 9.6 13.5 6.5 4.0 4.7 1.1 2.2 1.6 2.5 0.1 4.3
2.7 6.4 6.3 8.1 11.4 7.1 7.8 10.0 8.3 8.0 11.1 12.8 6.7 4.3 4.5 4.7 0.7 2.4 2.2 0.8 2.6 5.4
5.3 6.3 7.1 12.0 4.9 6.8 8.0 10.8 9.8 12.0 11.3 3.6 4.5 3.0 4.0 3.5 1.0 2.3 0.8 4.7 4.0

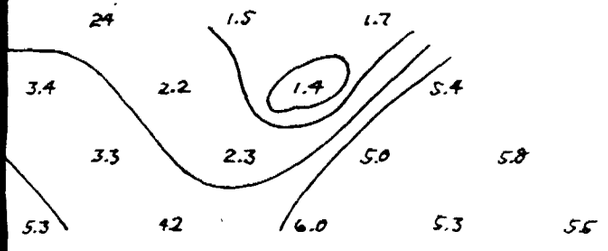
6+00S 5+75S 5+50S 5+25S 5+00S 4+75S 4+50S 4+25S



C.P.



M.F.



F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0 m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 25 E

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

16+50S | 16+25S | 16+00S | 15+75S | 15+50S | 15+25S | 15+00S | 14+75S | 14+50S | 14+25S | 14+00S | 13+75S | 13+50S | 13+25S | 13+00S | 12+75S | 12+50S | 12+25S

N-1 32142 24985 22800 29925 383 309 54.0 187 5801 5858 4988 7378 10094 5700

N-2 44375 31875 27375 34821 496 347 279 157 464 389 4922 18713 22352 6000

N-3 35921 43035 33369 34607 516 365 251 715 316 294 471 14883 13348 12033 13272

N-4 34492 70300 42750 38679 448 297 222 634 1140 198 321 1342 11202 10154 22353

N-1 3.1 0.1 0.2 0.1 6.3 4.5 22.0 3.7 0.1 0.5 3.1 3.1 0.2 0.3

N-2 0.1 0.1 0.1 0.1 4.6 4.6 -2.4 8.3 0.9 3.9 0.4 3.1 3.1 0.4

N-3 0.1 0.1 0.1 0.1 4.7 5.8 2.4 0.1 1.3 2.4 2.5 0.1 3.2 0.3 0.2

N-4 0.1 0.1 0.1 0.1 5.1 7.1 0.9 0.2 0.1 4.5 0.3 0.7 3.2 0.3 3.2

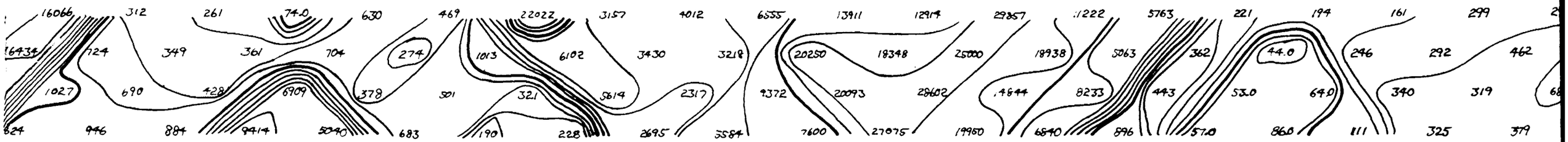
N-1 1.6 2.7 3.6 2.4 2.4 1.4 1.2 0.7 1.6 2.8 3.4 2.8 1.6 1.7

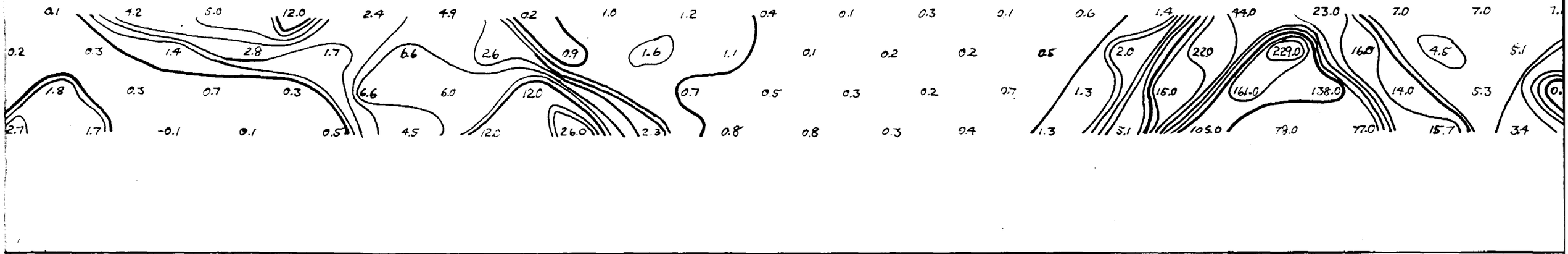
N-2 1.7 3.1 4.1 3.9 2.3 1.6 -0.4 1.3 0.4 1.5 2.0 2.2 2.7 2.4

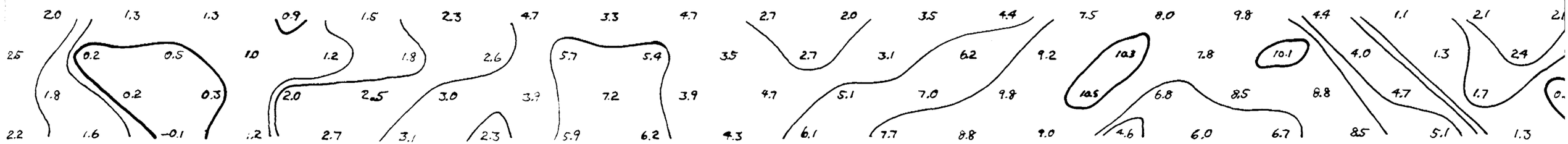
N-3 2.3 2.6 4.3 3.3 2.4 2.1 0.6 0.1 0.4 0.7 1.2 1.8 2.0 3.3 3.0

N-4 2.1 3.4 4.3 3.9 2.3 2.1 0.2 0.1 0.1 0.9 0.1 0.9 2.3 3.2 3.6

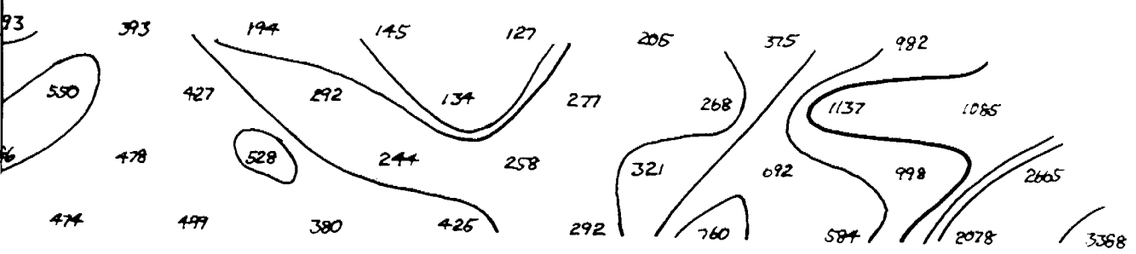
12+00S 11+75S 11+50S 11+25S 11+00S 10+75S 10+50S 10+25S 10+00S 9+75S 9+50S 9+25S 9+00S 8+75S 8+50S 8+25S 8+00S 7+75S 7+50S 7+25S







7+00S 6+75S 6+50S 6+25S 6+00S 5+75S 5+50S 5+25S 5+00S 4+75S 4+50S 4+25S



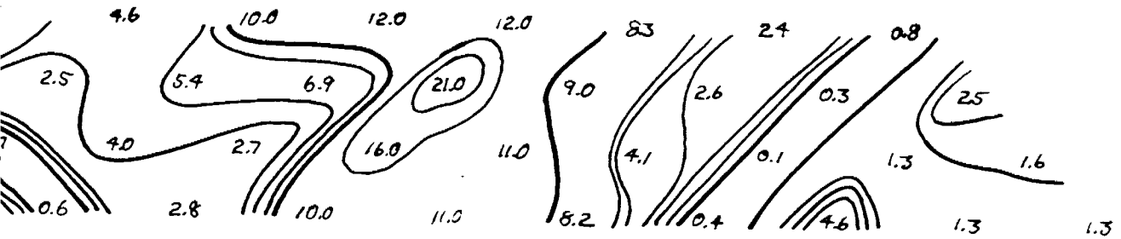
C.J.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

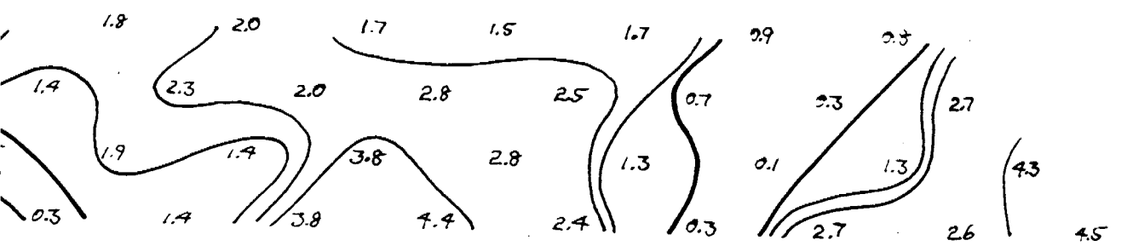
SCALE : 2·0 cm = 25·0m = Electrode Interval
FREQUENCIES : 0·3 & 5·0 Hz.
DATE:



LINE: 26 E

M.F.

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.



F.E.

	15+25S	15+00S	14+75S	14+50S	14+25S	14+00S	13+75S	13+50S	13+25S	13+00S	12+75S	12+50S	12+25S	12+00S	11+75S	11+50S	11+25S	11+00S	10+75S	10+50S
N-1			.1938	7071	.19216	4071	.179	239	.20	134	120	117	242	853	664	760	244	.64	181	
N-2			3059	4602	6520	3643	1513	.892	301	.42	.56	125	288	866	486	661	1216	391	234	181
N-3			6261	9716	1021	1310	1627	2307	347	.54	.50	260	682	434	471	863	519	505	223	
N-4			.1767	1622	305	1267	.1670	2827	384	.34	313	806	401	322	437	1039	633	483	584	

N-1			1.2	9.6	0.3	0.7	.7	2.9	5.8	0.7	4.2	3.4	4.5	0.5	1.2	2.0	0.4	3.0	0.6	
N-2		0.3	0.3	0.6	0.9	1.7	3.7	1.0	3.7	4.5	-0.8	3.5	2.0	2.2	0.4	0.8	0.3	-2.1	4.4	
N-3		0.1	0.2	2.6	2.1	1.0	0.4	-0.3	-3.0	3.3	-1.1	2.0	5.0	1.2	-0.3	-0.2	-2.8	0.4		
N-4		0.1	0.9	6.9	1.7	3.9	0.1	-0.3	-1.5	1.6	1.2	5.7	4.7	0.9	-0.1	-0.3	-0.4	-2.4		

N-1			2.3	4.1	4.9	3.0	1.9	0.7	0.7	0.9	2.5	1.1	1.1	3.8	3.8	1.5	0.1	0.5	3.1	
N-2		1.0	2.0	3.8	3.4	2.6	1.3	3.3	3.8	3.7	0.1	1.0	1.7	1.1	0.3	1.0	0.1	-0.5	0.8	
N-3		0.9	2.1	2.7	2.8	1.6	0.9	-0.1	-0.1	0.5	-0.3	1.8	2.0	0.5	-0.3	-0.1	-1.4	0.1		
N-4		1.3	1.4	2.1	2.1	1.5	0.1	-0.1	-0.2	0.5	1.0	2.3	1.5	0.4	-0.1	-0.2	-0.2	-1.4		

10+00S 9+75S 9+50S 9+25S 9+00S 8+75S 8+50S 8+25S 8+00S 7+75S 7+50S 7+25S 7+00S 6+75S 6+50S 6+25S 6+00S 5+75S 5+50S 5+25S 3+00S

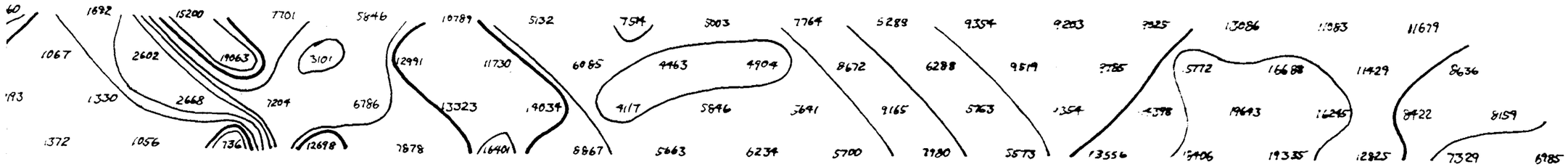
207 686 615 950 1886 2877 4065 2054 1748 1682 10397 4125 12646 3948 27143 35893 14356 17908 7125 6576 2384 4200 19102 29260 14725 17130 48179 25650 1242 14063 31350 32359 1814 2738 593 350 418 67.0 380 289 272 295 633 820 129 285 650 172 343 354 19 338 317 688 201 278 219 233 242 229 288 298 288 236 292 260 220 271 154 124 181 302 271 422 201 664 229 871 1046 1425 1267

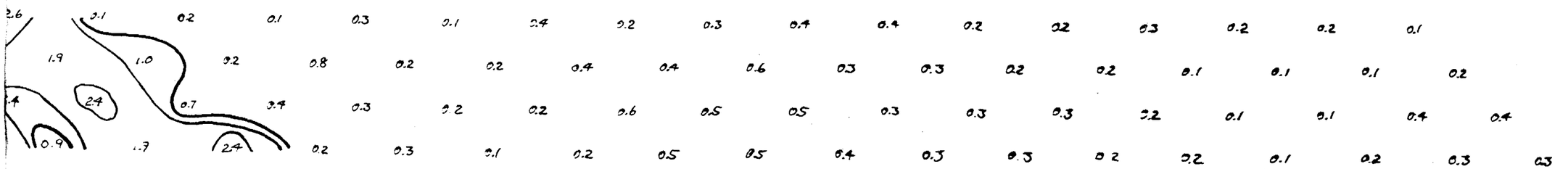
2.9 -0.7 0.5 0.5 0.1 0.2 1.0 0.2 2.3 2.4 3.9 6.2 0.5 7.3 7.3 6.4 5.6 6.6 11.0 16.0 5.5 2.
0.1 3.8 1.0 0.4 0.1 0.6 0.1 0.3 1.1 5.1 4.6 8.8 1.5 1.7 5.8 1.7 2.8 7.0 12.0 2.2 2.3
-1.6 0.6 1.8 0.9 0.3 0.2 0.1 0.3 0.2 9.7 6.5 8.4 7.4 3.4 1.5 1.4 0.4 3.8 5.6 6.5 1.9
0.1 1.8 2.1 1.0 0.6 0.1 0.2 0.2 2.8 7.5 10.0 6.6 3.6 -2.0 0.4 0.8 2.7 2.2 3.1 1.5 2.0

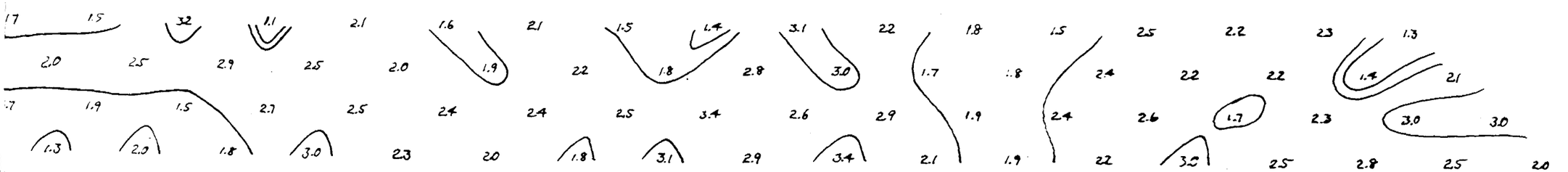
0.6 -0.5 2.0 4.8 2.8 2.7 2.3 2.7 2.9 4.4 1.5 1.8 0.3 0.6 1.2 1.4 1.3 1.6 1.7 2.0 1.1
0.1 1.6 4.3 4.5 2.9 2.5 2.6 4.6 3.0 3.0 1.6 2.5 0.1 0.3 1.8 0.4 0.8 2.1 2.2 0.5 2.0
-1.5 1.2 3.1 3.5 4.1 1.5 2.8 5.2 5.2 0.8 2.7 2.3 2.6 -0.4 0.5 0.4 0.1 1.1 1.7 1.5 2.0
0.1 3.0 3.2 3.9 3.7 2.7 5.4 5.6 2.4 0.5 3.1 2.1 2.5 -0.4 0.1 0.2 0.6 0.6 1.3 2.1 2.5

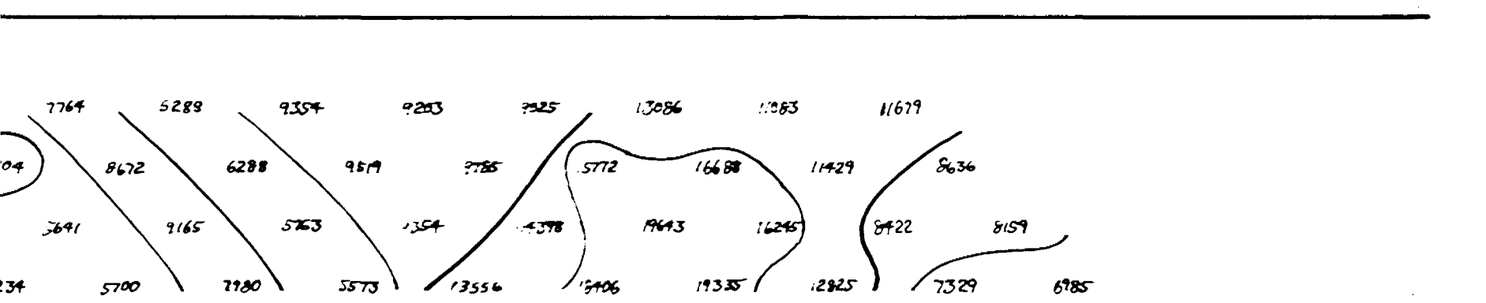
15+00S

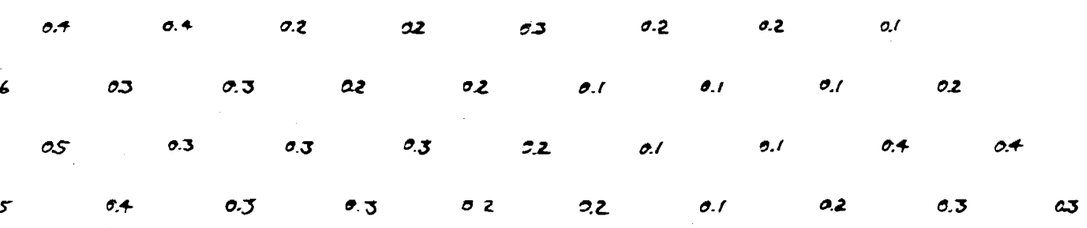
4+75S 4+50S 4+25S 4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00

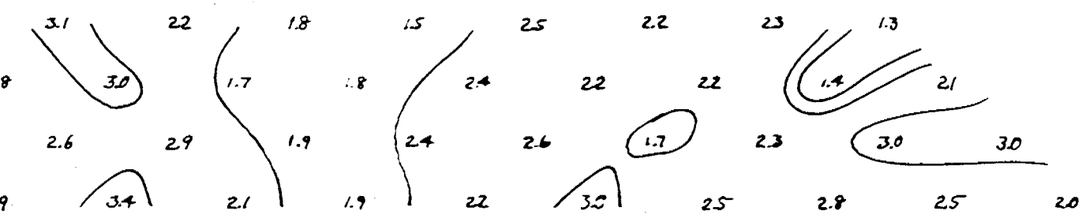












SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 28 E

M.F.

F.E.

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

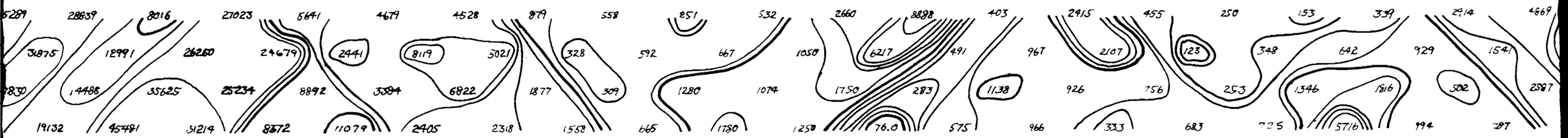
13+75S 13+50S 13+25S 13+00S 12+75S 12+50S 12+25S 12+00S 11+75S 11+50S 11+25S 11+00S 10+75S 10+50S 10+25S 10+00S 9+75S 9+50S 9+25S

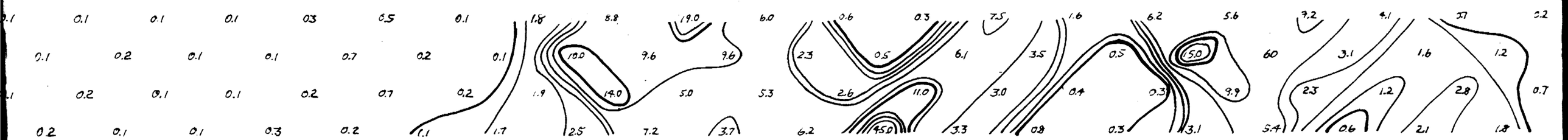
N-1 270 250 262 443 367 534 1031 1658 1729 2935 5273 2771 4608 8864 10253 12172 18390
N-2 385 409 435 444 623 838 718 1301 668 4800 6031 5969 4041 13411 20016 12188 15000
N-3 618 675 728 1219 1397 768 774 599 903 4322 10027 4013 6919 21078 24836 15734
N-4 741 1017 1938 2280 1146 771 353 745 8886 6911 5897 6135 9856 24429 31469 23914

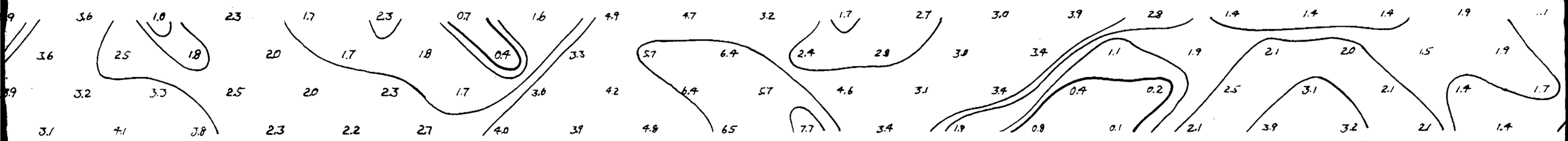
N-1 5.1 7.6 5.0 8.4 1.4 1.1 0.9 9.9 1.6 0.8 2.3 0.6 0.5 2.3 0.2 0.2 0.1
N-2 2.3 4.2 2.3 2.0 1.0 0.6 2.4 2.3 3.9 3.5 0.7 0.4 2.8 2.3 0.1 0.2 0.1
N-3 1.8 2.1 1.9 0.5 1.0 1.3 6.7 6.7 4.2 0.7 0.5 2.8 2.4 0.1 0.1 0.1
N-4 1.5 0.6 0.5 0.3 0.8 6.5 16.7 7.0 7.2 0.9 3.9 2.6 0.3 0.1 0.1 0.1

N-1 1.4 1.9 1.3 3.3 0.5 0.6 0.9 1.4 2.7 2.5 1.6 1.7 2.3 2.6 2.0 2.6 2.2
N-2 0.9 1.7 0.6 0.9 0.6 0.5 1.7 3.0 2.6 2.5 3.6 2.3 2.5 3.4 2.8 2.0 1.7
N-3 1.1 1.0 1.4 0.6 1.4 1.0 5.1 4.0 3.8 3.1 5.1 3.1 2.7 3.7 2.2 1.3
N-4 0.7 0.6 0.9 0.6 0.9 5.0 5.9 5.2 6.4 5.6 3.1 3.4 3.1 3.3 1.7 3.8

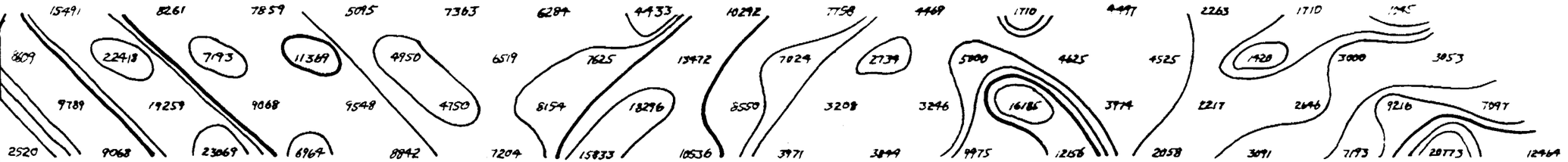
9+00S 8+75S 8+50S 8+25S 8+00S 7+75S 7+50S 7+25S 7+00S 6+75S 6+50S 6+25S 6+00S 5+75S 5+50S 5+25S 5+00S 4+75S 4+50S 4+25S

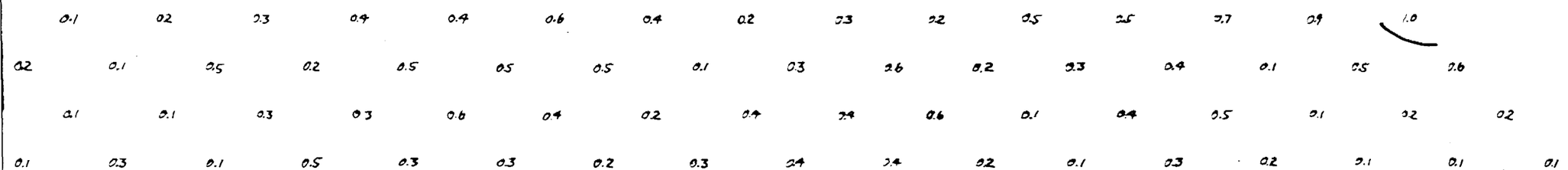


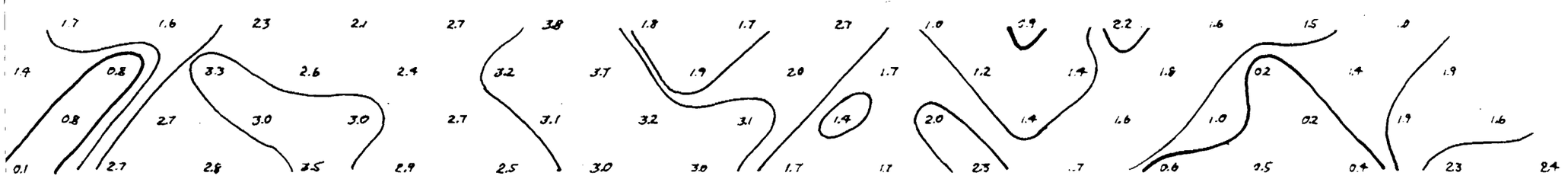


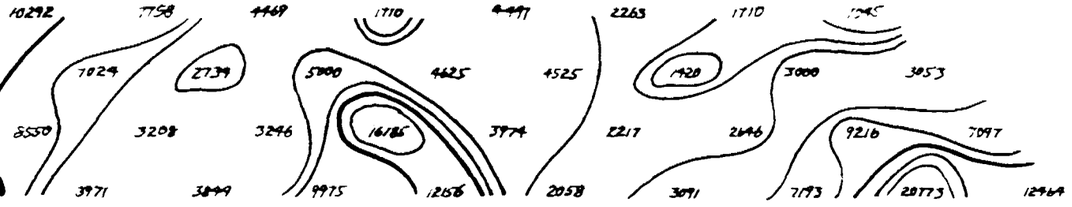


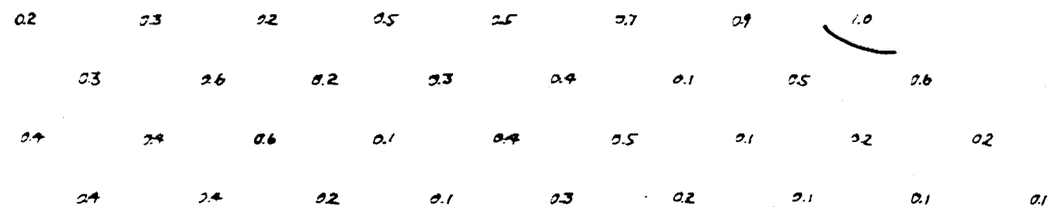
4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N

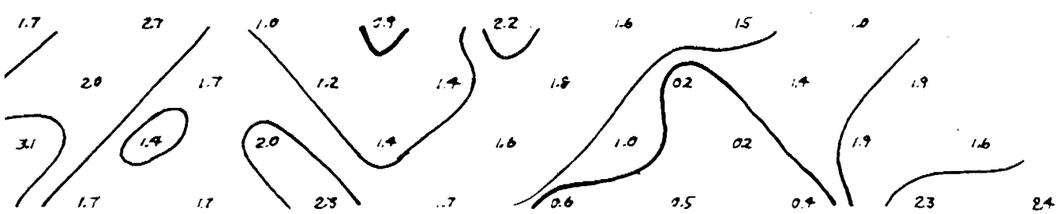












SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 30 E

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

	15+25S	15+00S	14+75S	14+50S	14+25S	14+00S	13+75S	13+50S	13+25S	13+00S	12+75S	12+50S	12+25S	12+00S	11+75S	11+50S	11+25S	11+00S	10+75S	10+50S
N-1					177	283	2173	6052	8130	9332	7750	7719	7500	7317	8732	6318	4599	3462	2565	
N-2					74	139	177	881	2910	6901	9400	8438	10938	10485	9708	6397	6075	5455	2582	3938
N-3					221	512	101	118	476	211	5700	9806	12922	14646	12813	7240	7404	6992	5376	4978
N-4					1410	176	20	59	106	435	1588	5087	12741	16245	16229	8350	7554	8005	7220	9068

	15+25S	15+00S	14+75S	14+50S	14+25S	14+00S	13+75S	13+50S	13+25S	13+00S	12+75S	12+50S	12+25S	12+00S	11+75S	11+50S	11+25S	11+00S	10+75S	10+50S
N-1					14.0	7.4	1.2	0.3	0.2	0.2	0.4	0.9	0.3	0.4	0.2	0.2	0.2	0.3	0.4	
N-2					32.0	21.0	14.0	1.2	4.8	0.5	0.3	0.4	0.2	0.3	0.3	0.4	0.2	0.1	0.2	0.4
N-3					17.0	5.7	37.0	18.0	4.0	6.6	0.5	0.3	0.2	0.2	0.2	0.5	0.2	0.2	0.1	0.3
N-4					3.1	16.0	67.0	41.0	45.0	7.3	0.5	0.6	0.3	0.2	0.2	0.4	0.4	0.1	0.1	0.2

	15+25S	15+00S	14+75S	14+50S	14+25S	14+00S	13+75S	13+50S	13+25S	13+00S	12+75S	12+50S	12+25S	12+00S	11+75S	11+50S	11+25S	11+00S	10+75S	10+50S
N-1					2.4	2.1	2.6	1.6	2.0	2.2	3.4	2.3	2.3	2.6	1.9	1.5	0.7	1.0	1.0	
N-2					2.4	2.9	2.5	1.1	1.4	3.7	3.0	3.3	1.8	2.9	3.3	2.3	1.0	0.7	0.6	1.6
N-3					3.8	2.9	3.7	2.1	1.9	1.4	2.6	3.2	3.0	2.6	2.9	3.7	1.8	1.1	0.3	1.6
N-4					4.4	2.8	1.4	2.4	4.7	3.2	1.6	3.0	3.7	3.2	3.3	3.2	3.0	1.1	1.0	1.8

10+25S 10+00S 9+75S 9+50S 9+25S 9+00S 8+75S 8+50S 8+25S 8+00S 7+75S 7+50S 7+25S 7+00S 6+75S 6+50S 6+25S 6+00S 5+75S 5+50S 5+25S

71 2577 7629 7894 8924
2077 2707 4915 9817 8466
54 2145 5232 8629 10112 23390
2965 9405 2138 8503 26485 9897

4106 4431 804 841 1255 3589 14097 6577 2291
8021 4985 1818 767 1080 1709 17894 6328 2048
9236 7936 2138 1317 1131 1599 988 6947 2243 1973
12456 8423 3034 1188 1968 1631 1321 435 2499 1952

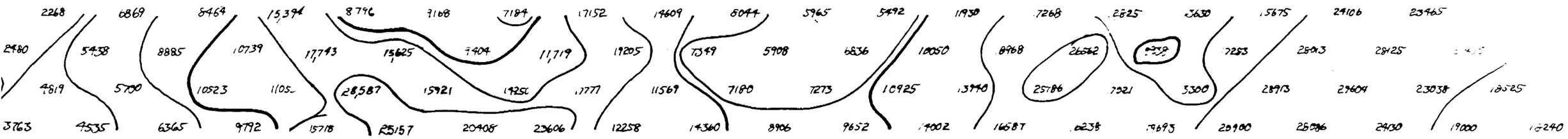
.4 1.0 0.5 0.7 0.5
1.6 1.2 0.7 0.6 0.7
.2 1.9 0.7 0.6 0.2 0.3
1.6 1.0 3.2 0.7 0.2 0.6

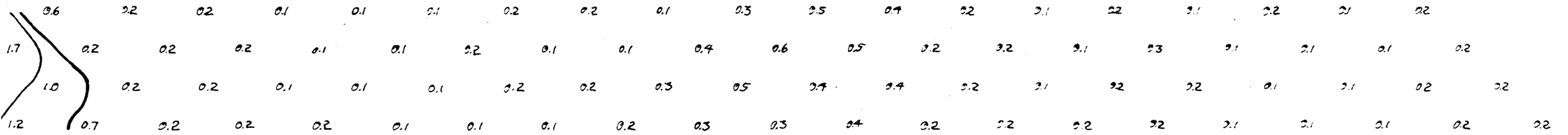
0.5 1.1 5.8 7.1 4.1 1.0 0.2 0.5 1.8
2.3 0.8 2.4 9.6 6.7 3.5 0.2 0.6 2.4
2.1 2.5 1.6 5.0 6.1 1.1 5.1 0.6 2.4 2.1
2.2 0.6 1.4 4.0 3.2 4.4 5.0 10.0 2.3 2.9

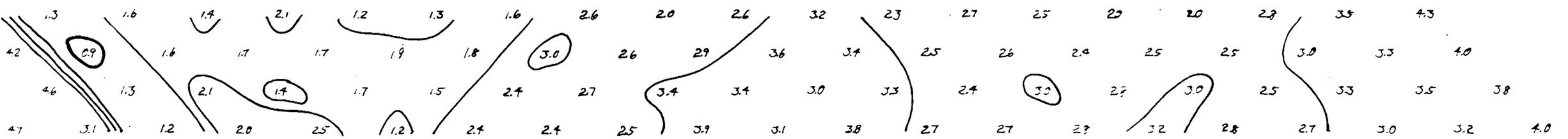
.2 2.5 3.5 3.2 4.9
3.4 3.3 3.4 5.6 5.7
.0 4.1 3.6 5.5 5.9 6.0
4.6 4.2 6.8 6.0 6.3 5.5

2.0 5.0 4.7 6.0 5.2 3.4 3.5 3.2 4.2
2.7 4.0 4.3 7.4 7.2 5.9 3.7 4.0 4.9
2.9 4.0 3.5 6.6 6.9 7.1 5.0 4.3 5.4 4.1
2.1 4.7 4.3 4.8 6.2 7.2 6.6 4.4 5.7 5.7

5+00S 4+75S 4+50S 4+25S 4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1.00S 0+75S 0+50S 0+25S 0+00 0+2







M.F.

F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0 m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 32 E

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N

5119 3259 6301 6608 3265 10035 5193 3029 7283 8581 14334 4819 14683 4151 14598 10147 7735 5890 826
4182 8469 7437 9154 5824 13603 15375 1932 10312 14124 8345 5397 8190 6578 4319 11587 14886 8357 10,804 11,250
8840 5470 15817 18500 7154 19000 17290 6175 5445 18229 20583 3114 6978 4123 6092 4873 13935 15588 13,911 12,955
9794 8993 17547 6590 20163 20900 6138 14826 8809 23362 7663 3562 3192 3735 7063 6438 14376 26,283 15869 4184

0.2 0.3 0.2 0.2 0.4 0.1 0.3 0.5 0.2 0.2 0.1 1.4 0.3 2.2 0.2 0.2 0.2 0.3 0.2
0.2 0.1 0.1 0.1 0.2 0.1 0.1 0.7 0.1 0.1 0.2 1.0 0.9 1.2 1.8 0.3 0.1 0.2 0.2 0.2
0.2 0.2 0.1 0.1 0.2 0.1 0.1 0.3 0.2 0.1 0.1 1.6 1.0 2.6 1.2 1.2 0.2 0.1 0.2 0.1
0.2 0.1 0.1 0.3 0.1 0.1 0.3 0.1 0.2 0.1 0.6 1.7 3.0 2.4 0.9 0.8 0.2 0.1 0.2 0.4

0.8 1.0 1.0 1.2 1.3 1.5 1.4 1.4 1.1 1.2 1.8 6.9 3.8 9.3 2.7 2.1 1.9 1.8 1.7
0.7 1.1 1.0 1.3 1.4 2.0 2.2 1.3 1.3 1.5 2.0 5.3 7.4 7.7 7.6 3.3 2.0 1.9 2.0 1.7
1.4 1.0 1.8 1.5 1.6 2.1 2.3 2.0 1.3 1.9 2.4 4.9 6.7 10.6 7.3 5.8 3.3 1.9 2.5 1.9
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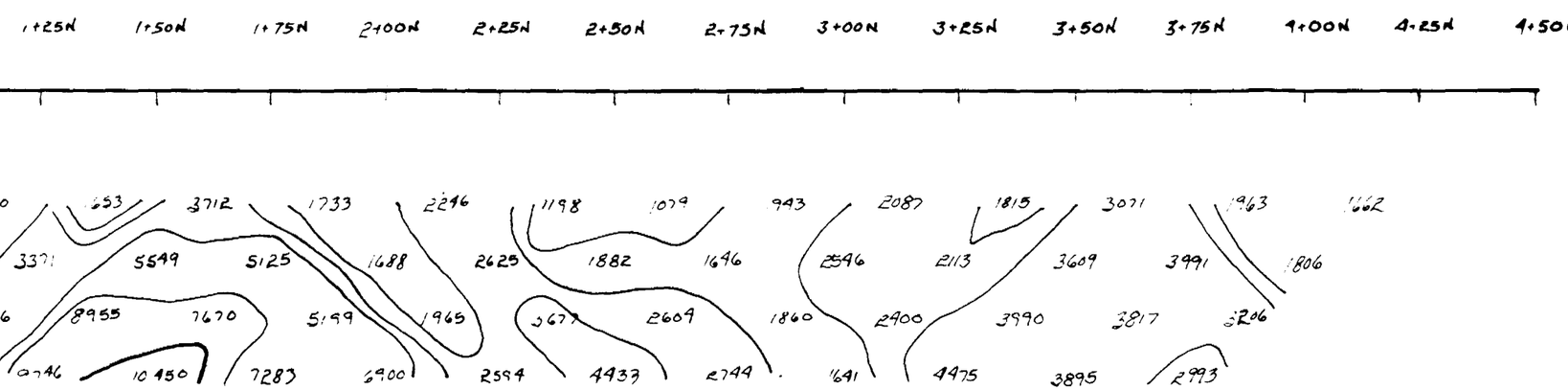
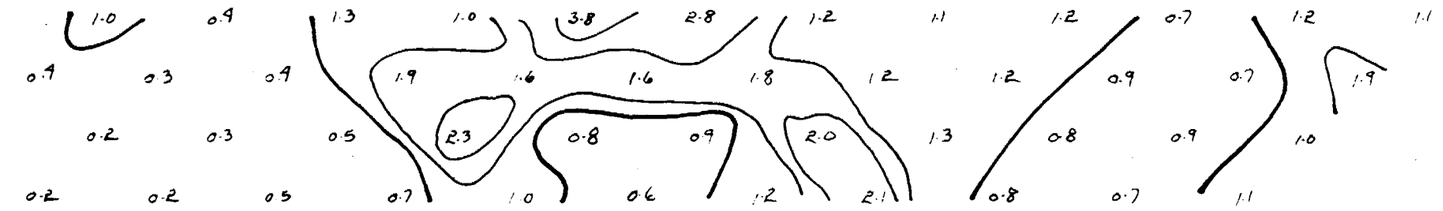




SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

Ca

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 1 W

M.F.

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

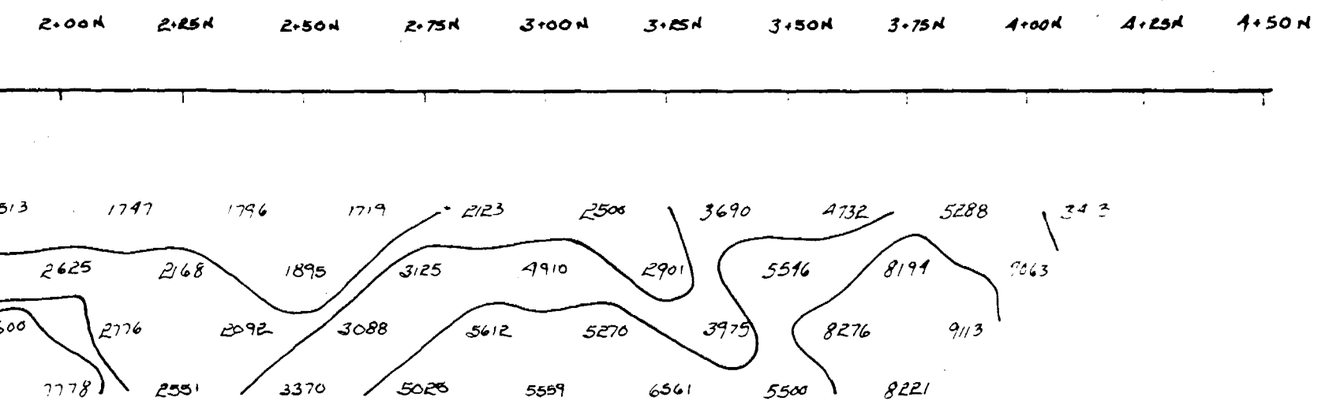
F.E.

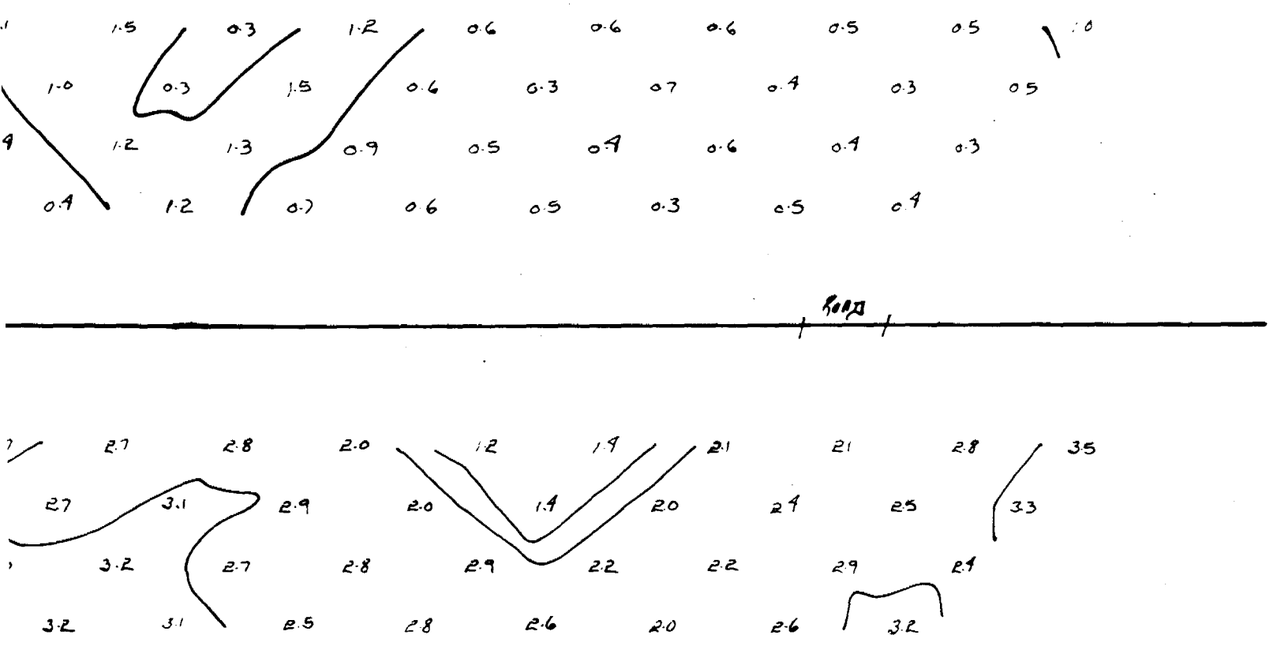
4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+

3687 3706 3279 3356 3659 9468 3750 1372 1389 6141 1479 3816 9226 2797 6779 7006 5074 3483 3270 7559
5978 4085 4991 4862 4236 3599 16390 3798 1847 1645 1861 4720 5799 4204 5085 9375 9656 7186 9150 8397 58
5487 4523 6048 1498 12693 1969 13247 5066 1785 510 4402 6175 2702 5628 7177 11464 14226 13813 10450 5049
10404 4712 6509 15134 6469 14531 14503 5584 1995 1062 4122 2660 3308 7006 8972 15459 23,560 14167 5711 5

0.2 0.3 0.5 0.5 1.2 0.3 0.1 1.0 0.6 0.4 4.1 1.3 0.3 2.4 0.3 0.2 0.4 0.3 0.3 0.3
0.1 0.2 0.3 0.3 0.8 0.8 0.3 0.3 1.2 1.1 0.3 0.9 1.1 1.6 1.2 0.3 0.1 0.2 0.2 0.3
0.2 0.3 0.2 1.9 0.2 1.0 0.1 0.4 1.4 7.6 0.8 0.9 3.0 1.1 0.7 0.2 0.1 0.2 0.2 0.5
0.2 0.2 0.3 0.1 0.6 0.2 0.2 0.4 1.0 2.4 1.2 2.9 2.5 0.8 0.5 0.2 0.1 0.2 0.4

0.6 1.0 1.6 1.7 4.3 2.4 0.5 1.4 0.8 2.8 6.1 4.8 2.7 4.7 2.3 1.1 2.8 1.2 2.0 2.5
0.7 0.7 1.7 1.4 3.2 3.0 0.5 1.2 2.3 1.8 5.0 4.3 6.1 6.8 5.8 2.7 1.2 1.9 2.2 2.1
1.0 1.5 1.5 2.8 2.2 1.9 1.3 2.1 2.6 3.9 3.6 5.5 8.2 6.1 5.1 2.9 1.2 2.2 2.4 2.3
1.7 1.1 2.5 1.7 3.9 2.7 2.3 2.5 2.0 2.6 5.0 7.8 8.2 9.4 4.5 3.2 2.3 2.5 2.5





SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0 m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 2 W

M.F.

F.E.

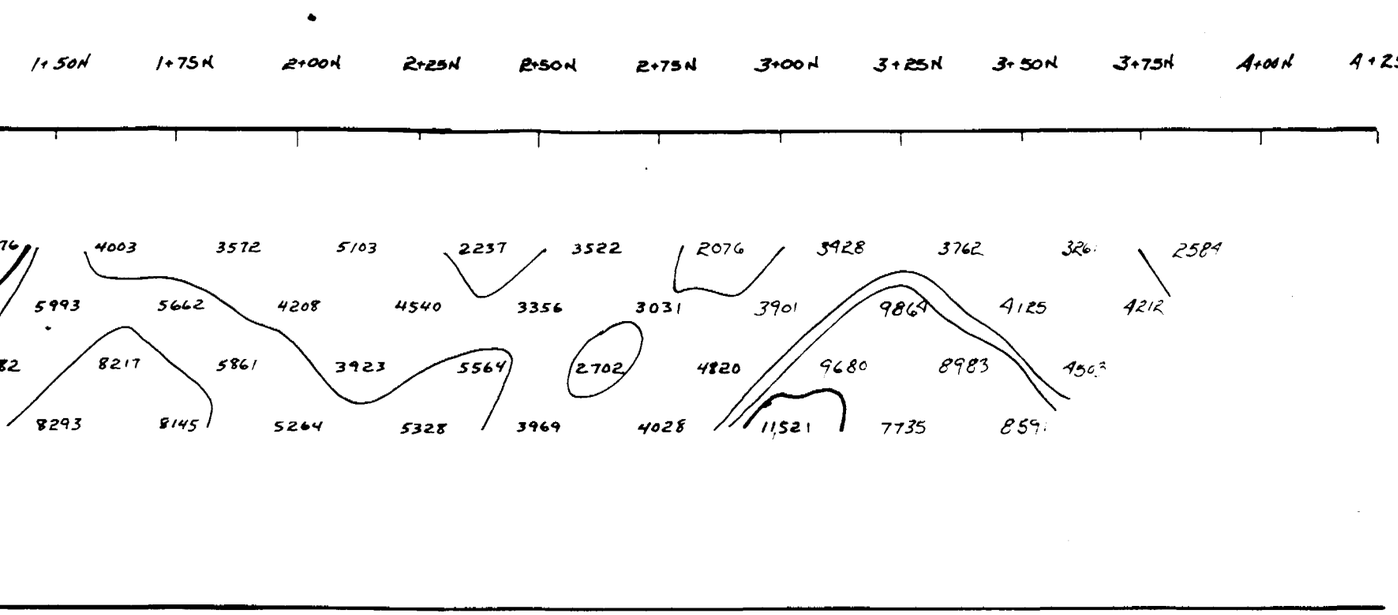
Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

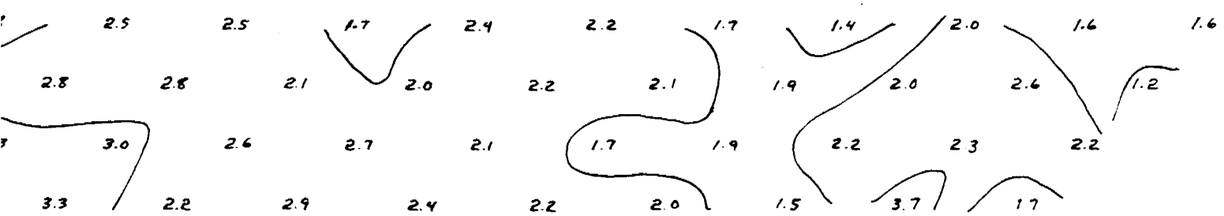
4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00

3664 3211 3720 2299 1863 2618 629 444 715 1947 1626 11901 11012 1548 7558 7538 6469 5488 7220
3468 3465 3015 3259 4183 1806 693 1708 2667 890 989 6328 10677 2437 3725 5755 9619 14791 6772 8125
3481 3377 3303 5626 3540 575 1900 9120 3087 435 2665 5545 2506 4943 3861 6856 19079 19380 6887
2981 4145 5590 4469 1122 1374 9571 9183 2014 964 1889 1852 4618 4574 6691 12350 22420 18168 8467

0.2 0.3 0.3 0.6 0.9 0.4 3.6 1.4 1.7 1.2 3.2 0.3 0.2 6.5 0.3 0.3 0.2 0.3 0.2
0.1 0.3 0.4 0.5 0.5 0.8 2.9 0.4 0.4 2.5 3.7 0.8 0.4 3.3 1.9 0.5 0.2 0.1 0.3 0.2
0.3 0.3 0.5 0.3 0.5 3.3 0.4 0.1 0.7 7.8 1.4 1.0 3.4 1.2 1.5 0.5 0.1 0.1 0.3
0.3 0.3 0.3 0.4 1.5 0.5 0.1 0.3 1.2 2.9 2.2 4.5 1.5 1.1 0.7 0.3 0.1 0.1 0.3

0.9 0.9 1.0 1.3 1.7 1.0 1.9 0.6 1.2 2.3 5.2 3.3 2.0 10.1 2.6 1.5 1.6 1.8 1.8
0.3 1.0 1.1 1.7 2.0 1.5 2.0 0.6 1.2 2.2 3.7 4.8 4.3 8.1 7.1 2.9 1.9 2.2 2.1 1.5
1.1 1.1 1.8 1.9 1.6 1.9 0.7 1.0 2.1 3.4 3.6 5.8 9.1 5.8 5.6 3.4 2.6 2.5 2.4
1.0 1.4 1.9 1.6 1.7 0.7 1.3 2.4 2.4 2.8 4.2 8.3 7.0 4.9 4.8 3.6 2.9 2.7 2.3





SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 3 W

M.F.

F.E.

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

5+50S 5+25S 5+00S 4+75S 4+50S 4+25S 4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S 0+

5919 1937 2154 5770 550 467 266 864 526 313 131 576 670 4448 3528 1759
4339 4293 4937 861 206 1812 518 215 409 224 1021 729 500 10709 3397 23
7505 10266 740 332 993 3732 138 131 229 4741 1233 507 927 9563 4358
15094 1419 307 1609 2239 1079 92 80 4908 5954 894 841 688 3002

0.1 0.3 0.4 0.1 1.1 2.1 6.0 2.7 3.2 4.5 8.4 1.4 4.6 1.4 1.8 7.3
0.1 0.2 0.2 1.2 3.0 1.0 4.1 7.0 2.7 0.9 0.4 4.9 8.6 0.5 2.1 4.
0.1 0.1 1.2 0.3 1.5 0.5 10.1 5.3 0.3 0.1 2.4 7.7 3.8 0.9 1.4
0.1 0.4 3.3 0.7 0.8 1.0 10.7 7.5 0.1 0.5 3.4 3.9 8.4 2.6

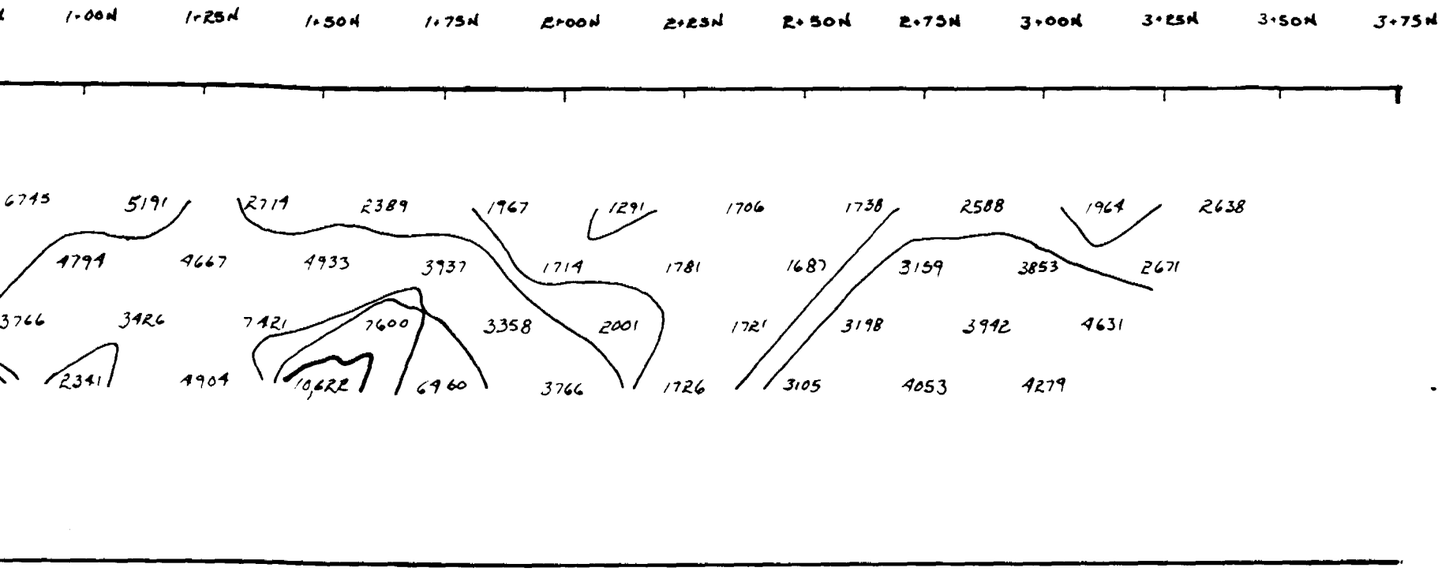
0.4 0.5 0.9 0.7 0.5 0.9 1.5 2.2 1.6 1.3 1.0 0.5 2.8 5.7 6.2 12.9
0.4 0.8 1.0 0.9 0.5 1.8 2.0 1.4 1.0 0.1 0.3 3.3 9.1 4.9 7.1
0.9 0.8 0.8 0.1 1.4 1.9 1.3 0.6 0.1 0.3 2.8 3.6 3.2 8.6 5.9
0.9 0.5 0.9 1.0 1.6 1.0 0.7 -0.5 0.1 3.0 8.9 3.0 5.5 7.5

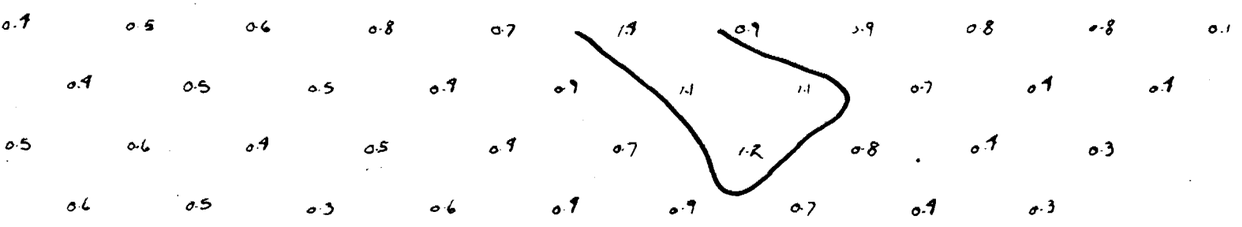
1+75S 1+50S 1+25S 1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25N

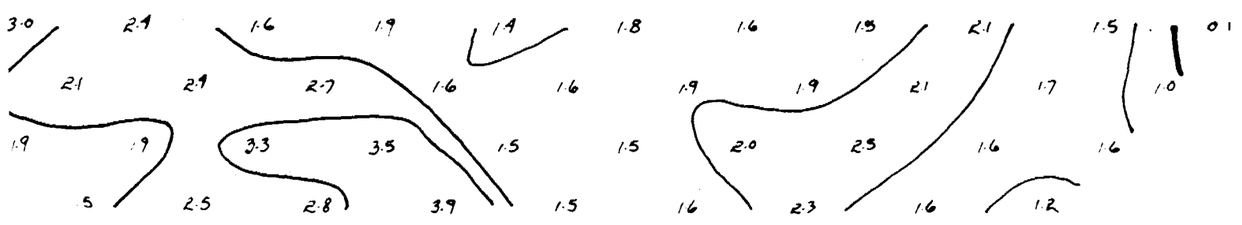
570 670 4448 3520 1759 12191 18525 1957 9785 6023 6745 5191 2719 2389 1967 1291 1706 1738 2588 1964 2638
1021 729 500 10709 3397 2390 20277 1886 12281 17301 6534 4794 4667 4933 3937 1714 1781 1687 3159 3853 2671
1233 507 927 9563 4358 4251 2404 4227 22451 17313 3766 3426 7421 7600 3358 2001 1721 3198 3942 4631
5954 894 841 688 3002 8717 2529 5795 7988 20662 9092 2341 4904 10622 6960 3766 1726 3105 4053 4279

1.4 4.6 1.4 1.8 7.3 0.3 0.1 0.6 0.7 0.3 0.7 0.5 0.6 0.8 0.7 1.9 0.9 0.9 0.8 0.8 0.1
0.4 4.9 8.6 0.5 2.1 4.2 0.2 2.9 0.3 0.1 0.5 0.9 0.5 0.5 0.9 0.9 1.1 1.1 0.7 0.7 0.7
2.4 7.7 3.8 0.9 1.4 2.2 2.1 1.5 0.2 0.2 0.5 0.6 0.9 0.5 0.9 0.7 1.2 0.8 0.7 0.3
0.5 3.4 3.9 8.4 2.6 0.7 1.8 1.1 0.7 0.3 0.2 0.6 0.5 0.3 0.6 0.9 0.9 0.7 0.9 0.3

0.5 2.8 5.7 6.2 12.9 4.2 1.5 3.0 2.8 1.9 3.0 2.4 1.6 1.9 1.4 1.8 1.6 1.5 2.1 1.5 0.1
0.3 3.3 9.1 4.9 7.1 10.1 4.3 5.4 4.2 2.2 3.1 2.1 2.9 2.7 1.6 1.6 1.9 1.9 2.1 1.7 1.0
2.8 3.6 3.2 8.6 5.9 9.4 5.1 6.5 3.8 3.9 1.9 1.9 3.3 3.5 1.5 1.5 2.0 2.5 1.6 1.6
3.0 2.9 3.0 5.5 7.5 6.1 4.5 6.1 5.7 5.2 2.1 .5 2.5 2.8 3.9 1.5 1.6 2.3 1.6 1.2







SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 4 W

M.F.

F.E.

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.

10+505 10+255 10+005 9+755 9+505 9+255 9+005 8+755 8+505 8+255 8+005 7+755 7+505 7+255 7+005 6+753 6+502 6+252 6+005

304 174 443 371 3138 3614 996 9603 4241 18214 16455 13458 1659 21992
174 242 1169 787 482 4573 1486 8196 15163 4312 16607 36499 2468 5085
81 121 1348 1828 800 596 1635 12010 11450 17306 5664 39017 5479 5977
68 58 1194 1860 1581 908 168 11834 15471 11970 18380 11467 5618 11009

4.9 6.9 0.4 2.7 0.3 0.3 1.1 0.2 0.4 0.1 0.1 0.1 0.8 0.1
8.6 7.9 0.7 1.4 1.2 0.3 0.2 0.1 0.1 0.4 0.1 0.1 0.5 0.3
19.8 19.8 2.3 1.1 0.6 1.3 0.6 0.1 0.1 0.1 0.4 0.1 0.2 0.2
36.8 87.4 2.6 1.8 1.0 0.8 5.3 0.1 0.1 0.1 0.1 0.1 0.2 0.1

1.5 1.2 0.2 1.0 1.1 1.2 1.1 1.7 1.6 1.3 1.4 1.3 1.3 2.1
1.5 1.9 0.8 1.1 0.6 1.3 0.3 0.9 1.6 1.6 1.7 1.1 1.2 1.4
1.6 2.4 3.1 2.1 0.5 0.5 0.9 1.0 0.8 1.3 2.1 1.8 1.0 1.4
2.5 5.1 3.1 3.4 1.6 0.7 0.9 1.1 1.4 1.1 1.6 1.6 1.1 1.4

ρ_a

n=1

n=2

n=3

n=4

MF

n=1

n=2

n=3

n=4

C·F·E

n=1

n=2

n=3

n=4

SPARTON RESOURCES INC

STRAW LAKE PROJECT

FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE : 5w

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.

5+75S 5+50S 5+25S 5+00S 4+75S 4+50S 4+25S 4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S 0+75S

1759 7867 4211 6624 4312 201 49 57 89 141 96 104 395 1155 8714 18346
3025 13624 2521 545 273 250 96 76 115 134 121 502 997 1937 12187 25429
4876 8637 285 351 356 426 99 81 114 146 707 1144 1340 2090 13300
2549 893 175 425 684 535 87 62 110 878 1565 1468 1268 1814 3616

0.4 0.2 0.2 0.2 0.3 5.5 16.3 14.0 6.7 9.9 16.7 9.6 3.0 1.7 0.1 0.1
0.2 0.1 0.3 2.2 3.8 4.9 11.5 7.9 5.2 11.9 11.6 1.4 1.4 0.9 0.1 0.1
0.2 0.2 3.2 1.2 2.5 2.8 9.0 7.4 4.4 3.4 1.6 0.7 1.5 0.8 0.3
0.3 1.9 4.1 1.6 1.2 2.0 6.9 6.4 4.5 0.3 0.9 0.8 1.0 2.3 2.0

0.8 1.2 0.9 1.1 1.4 1.1 0.8 0.8 0.6 1.1 1.6 1.8 1.2 2.0 0.9 1.1
0.7 1.4 0.8 1.2 0.9 1.1 1.1 0.6 0.6 1.6 1.4 0.7 1.4 1.7 1.2 3.8
1.1 1.5 0.9 0.9 0.9 1.2 0.9 0.6 0.5 0.5 1.1 0.8 2.0 1.6 4.1
0.7 1.7 0.2 0.7 0.8 1.1 0.6 0.9 0.5 0.3 1.4 1.0 1.4 4.2 7.4

0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25N 3+50N 3+75N 4+00N

3093 5551 11152 7540 5835 1232 2549 631 745 640 691 653 831 996 1342 1047 588
2812 7255 10,312 12,164 2750 3125 3098 909 1121 780 868 1135 1282 1348 1358 966
6085 4336 6382 15,691 5122 5541 3717 4116 1392 1382 935 1454 2046 1805 1171 895
8426 4839 9516 5700 8866 6036 5066 5869 1474 1665 1561 2466 2790 1463 910

3.1 1.0 0.3 0.3 0.3 1.0 0.9 3.2 2.6 3.1 2.5 2.3 1.8 1.5 0.9 1.4 2.0
2.9 0.7 0.3 0.1 0.6 0.6 0.7 2.4 2.1 1.7 2.5 1.7 1.6 1.0 0.9 1.6
1.2 1.5 0.8 0.2 0.5 0.4 0.5 0.5 1.6 1.7 2.4 1.3 1.1 0.9 1.0 1.5
0.7 1.1 0.6 0.6 0.3 0.3 0.4 0.4 1.4 1.4 1.4 0.8 0.7 1.5 2.7

ROAD

4.7 5.3 3.1 2.3 1.9 1.2 2.2 2.0 1.9 2.2 1.7 1.5 1.5 1.5 1.2 1.1 1.2
8.2 5.2 3.5 1.7 1.7 1.9 2.2 2.2 2.1 1.9 2.2 1.9 2.0 1.4 1.2 1.2
7.2 6.4 5.1 2.9 2.5 2.2 2.0 2.0 2.1 2.3 2.2 1.9 2.3 1.7 2.3 1.3
6.0 5.5 5.1 3.5 2.7 1.8 1.9 2.4 2.0 2.3 2.2 1.9 2.0 2.2 1.9

SPARTA

STRAW

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SCALE :

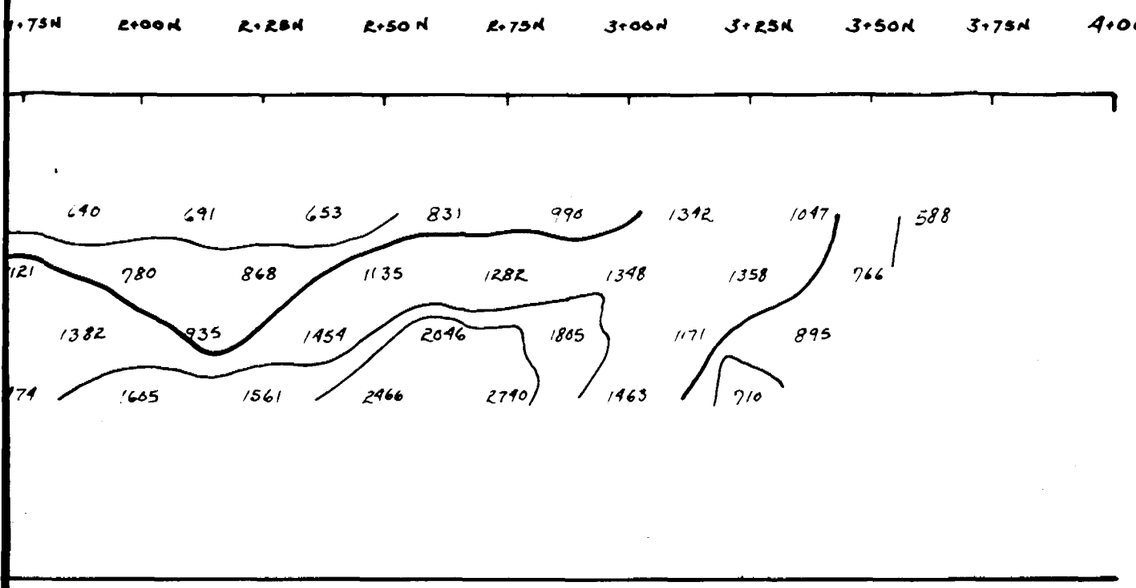
FREQUEN

DATE:

LINE :

Mertens

GEOPHYSI



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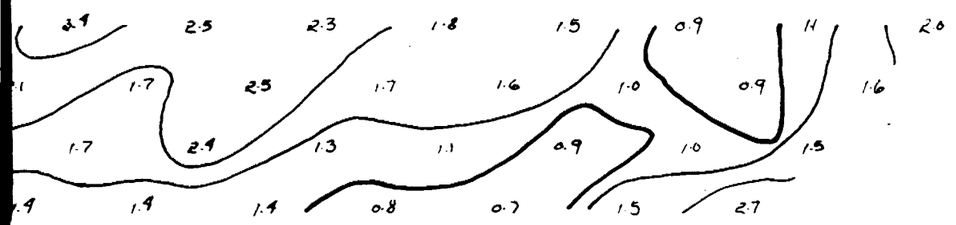

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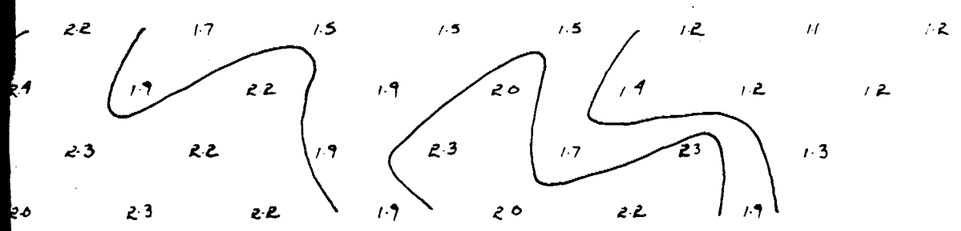


F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0 m = Electrode interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 5 W

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.

6+00S 5+75S 5+50S 5+25S 5+00S 4+75S 4+50S 4+25S 4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S 1+00S

4651 3928 2742 6225 2129 995 155 89 95 99 58 51 46 63 221 850 5928 16591
9765 6864 4366 2300 1546 1165 235 90 133 91 68 61 70 234 659 1361 14866
5935 9750 1282 1269 1509 1603 222 102 100 85 78 96 295 737 923 2629 7264
20000 2470 622 1201 1923 1497 237 72 83 91 131 476 960 767 1560 1052

0.3 0.5 0.5 0.2 0.4 1.5 10.3 11.2 15.8 14.1 10.3 17.6 19.7 11.1 4.1 1.8 0.2 0.1
0.2 0.2 0.5 0.3 0.6 1.3 4.7 12.2 9.6 11.0 7.4 9.8 8.6 0.9 1.1 1.8 0.1
0.1 0.2 0.9 0.6 0.7 0.8 6.8 12.7 11.0 11.8 7.7 4.2 0.3 0.1 0.7 0.8 0.7
0.1 0.6 1.4 0.4 0.4 0.9 5.9 12.5 10.8 6.6 5.3 1.1 0.4 0.1 1.0 4.5

1.4 2.0 1.4 1.4 0.9 1.5 1.6 1.0 1.5 1.4 0.6 0.9 0.9 0.7 0.9 1.1 1.4 1.7
2.0 1.7 2.3 0.7 1.0 1.5 1.1 1.1 1.2 1.0 0.5 0.6 0.6 0.2 0.7 1.3 2.0
1.7 2.2 1.1 0.7 1.1 1.3 1.5 1.3 1.1 1.0 0.6 0.4 -0.1 0.1 0.6 2.0 4.9
2.5 1.5 0.9 0.5 0.8 1.3 1.4 0.9 0.9 0.6 0.7 -0.5 -0.4 -0.1 1.6 4.7

0+75S 0+50S 0+25S 0+00N 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25N 3+50N 3+75N

5444 6574 1801 8322 10,507 5893 3469 2812 1748 1212 981 1220 1068 912 1011 861 429

395 6178 3866 3900 12000 9375 3865 4317 3691 2362 2077 1375 1067 1276 1484 763 618

9975 4324 6441 5111 11,593 5406 4800 4837 4864 3716 2637 1117 1991 2297 1284 532

282 6617 6688 8790 4574 6789 6025 5137 6308 6931 4191 1962 1625 2903 1746 890

Ea

1.0 1.2 3.7 0.6 0.2 0.3 0.3 0.7 1.0 1.4 1.6 1.6 1.9 1.9 1.5 2.0 4.4

1.3 2.3 1.6 0.3 0.3 0.5 0.5 0.6 0.9 0.8 1.6 1.7 2.9 1.3 2.1 2.5

0.8 1.6 1.3 1.2 0.3 0.4 0.9 0.5 0.5 0.6 0.9 1.7 1.5 1.2 1.9 3.9

1.1 0.9 0.8 1.2 0.5 0.9 0.9 0.9 0.3 0.6 1.0 1.3 0.9 1.5 2.7

M.F.

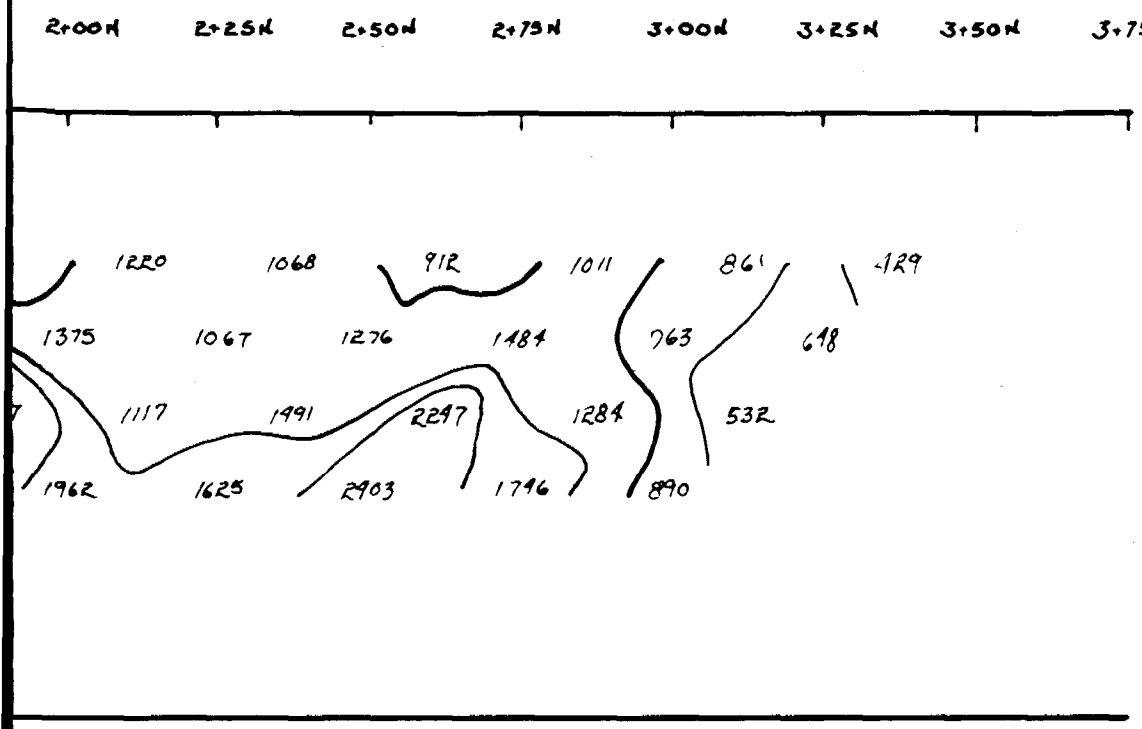
5.4 7.6 6.7 4.6 2.1 2.0 1.0 1.9 1.8 1.7 1.6 2.0 2.0 1.7 1.5 1.7 1.9

8.2 8.9 6.1 4.0 2.6 2.0 2.0 2.2 2.2 1.7 2.2 1.8 3.0 2.0 1.6 1.6

7.5 6.8 8.1 6.0 3.3 2.1 2.1 2.2 2.2 2.3 2.9 1.9 2.3 2.6 2.1 1.8

7.0 6.0 7.1 5.6 3.3 2.6 2.3 2.6 2.4 2.6 1.9 2.1 2.2 2.7 2.9

F.E



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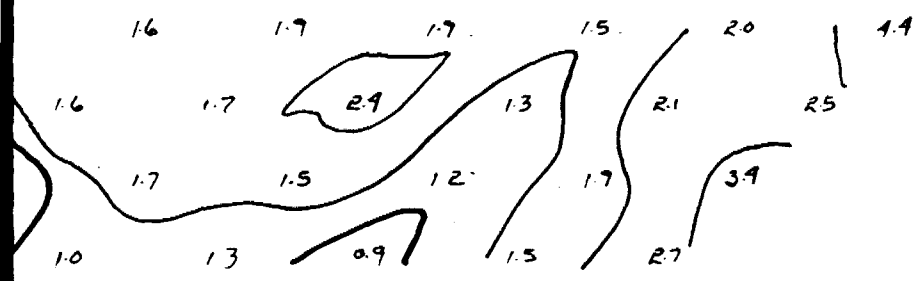

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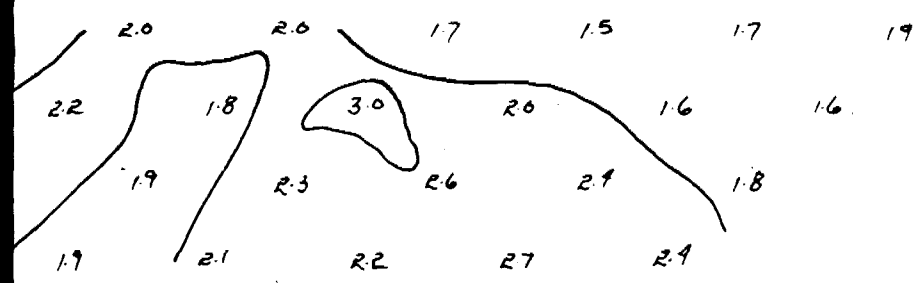


F.E

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 6 W

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

6+78S 6+50S 6+25S 6+00S 5+76S 5+60S 5+25S 5+00S 4+75S 4+50S 4+25S 4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S

2578 6395 4314 4182 8708 4973 6491 6677 5330 5059 6413 6257 396 334 228 390 1690
1785 4178 11250 2703 8541 8569 5825 7822 4643 5035 7371 6297 427 617 290 253 928
2065 2222 6584 7045 6635 8326 10861 6069 5242 4156 6531 6978 388 623 1288 1101 463 861
3720 2955 2989 4802 15235 6594 10513 10186 4169 4532 5130 4947 361 553 1833 2958 663

0.7 0.2 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.7 0.5 0.7 4.1 3.1 2.9 4.1 1.9
0.7 0.3 0.1 0.5 0.2 0.2 0.2 0.2 0.3 0.7 0.4 0.7 2.6 2.8 3.0 3.2 1.8
0.5 0.6 0.2 0.2 0.3 0.2 0.2 0.2 0.3 0.9 0.4 0.6 1.0 1.1 1.7 1.6 0.6 1.9
0.3 0.3 0.5 0.4 0.1 0.2 0.2 0.1 0.3 0.7 0.5 0.8 0.5 0.1 0 0.4 0.6 1.1

SWAMP

1.7 1.1 1.5 1.2 1.8 1.0 1.4 1.5 0.8 3.6 3.4 4.3 1.9 1.2 1.6 1.7 2.3
1.3 1.4 1.9 1.3 1.6 1.3 1.4 1.1 1.5 3.6 3.1 4.6 1.1 1.1 2.1 0.8 1.7
1.0 1.3 1.6 1.5 1.7 1.4 1.9 1.0 1.4 3.6 2.7 4.1 0.9 0.9 2.2 1.8 0.5 1.2
1.3 1.0 1.4 1.7 1.9 1.6 2.0 1.4 1.1 3.2 2.8 3.8 0.2 0.6 2 0.7 1.9 0.7

1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25N 3+50N 3+75N

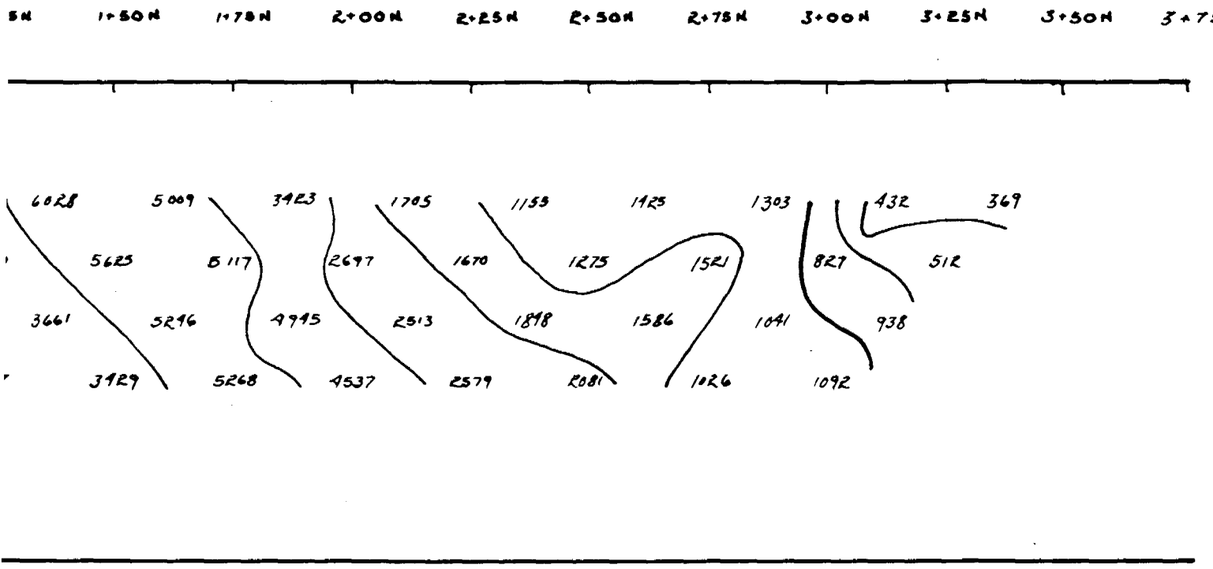
139 1123 3660 1840 1827 7280 10,397 3686 4534 4610 6028 5009 3923 1705 1153 1425 1303 432 369
18609 7083 3342 2429 9656 12,500 4286 6340 6264 4110 5625 5117 2697 1670 1275 1521 827 512
386 10,794 3628 4122 4108 15,060 6853 6671 7991 5663 3661 5296 4945 2513 1848 1586 1041 938
6913 5035 3879 7030 6755 7600 10,061 7808 6226 3117 3929 5268 4537 2579 2081 1026 1092

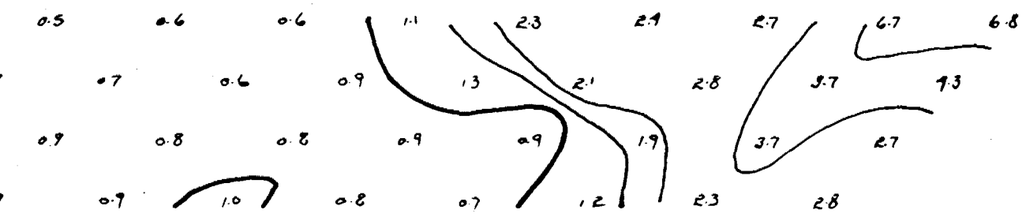
0.2 1.6 3.3 0.4 0.7 0.1 0.6 0.5 0.8 0.5 0.6 0.6 1.1 2.3 2.4 2.7 6.7 6.8
0.2 0.8 2.1 3.1 0.5 0.3 1.0 0.1 0.5 0.7 0.7 0.6 0.9 1.3 2.1 2.8 3.7 4.3
2 0.5 1.5 1.9 1.8 0.3 0.5 0.6 0.1 0.5 0.9 0.8 0.8 0.9 0.9 1.9 3.7 2.7
0.8 1.1 1.7 0.9 1.0 0.5 0.3 0.7 0.1 0.9 0.9 1.0 0.8 0.7 1.2 2.3 2.8

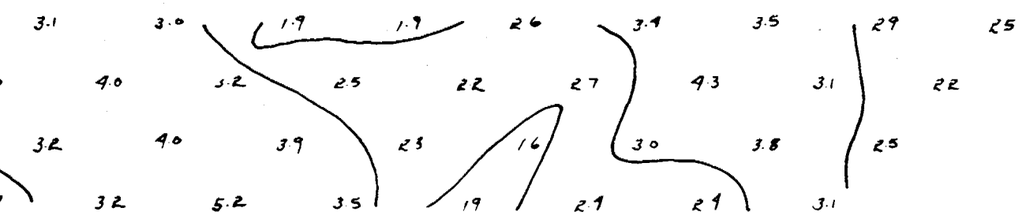
M.F.

3 2.1 6.8 6.0 3.3 5.0 4.0 2.2 2.2 3.7 3.1 3.0 1.9 1.9 2.6 3.4 3.5 2.9 2.5
2.9 5.5 7.0 7.6 5.1 4.1 4.2 2.5 3.3 3.0 4.0 3.2 2.5 2.2 2.7 4.3 3.1 2.2
6 5.6 5.4 7.8 7.3 4.5 3.2 4.3 3.1 2.7 3.2 4.0 3.9 2.3 1.6 3.0 3.8 2.5
5.4 5.6 6.5 6.8 6.9 4.0 3.0 4.9 2.8 2.7 3.2 5.2 3.5 1.9 2.1 2.1 3.1

F.E.







C.D.

M.F.

F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT

FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 7 W

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.

6+25S 6+00S 5+75S 5+50S 5+25S 5+00S 4+75S 4+50S 4+25S 4+00S 3+75S 3+50S 3+25S 3+00S 2+75S 2+50S 2+25S 2+00S 1+75S 1+50S 1+25S

1
2
3
4

1856 4928 4602 4388 5496 5225 13003 12407 7896 4225 13062 7778 990 2592 5255 6350 8468 10098

3578 1726 7078 6616 6569 8250 8730 11049 12450 10559 10371 10429 653 6484 3448 4347 17578 7459 24375

6360 3582 2612 8052 9550 8028 11934 7441 12231 11950 20929 7362 660 4868 7486 3149 8189 15041 16625

11813 5502 4631 2831 10246 11590 11043 9310 7826 10700 20781 13359 409 5759 5390 7388 7035 6093 28895 11916

1
2
3
4

3.5 0.3 0.3 0.2 0.4 0.3 0.1 0.9 0.7 -0.4 0.1 0.2 2.1 0.3 0.6 0.3 0.2 0.3

0.4 0.5 0.4 0.2 0.4 0.3 0.2 0.1 0.8 0.1 0.2 0.2 2.5 0.2 0.6 0.8 0.1 0.3 0.1

0.4 0.3 0.6 0.2 0.3 0.3 0.2 0.2 0.1 0.1 0.1 0.3 0.6 0.2 0.3 0.5 0.3 0.1 0.2

0.2 0.4 0.3 0.2 0.3 0.2 0.2 0.4 0.2 0.2 0.1 0.2 3.2 0.1 0.4 0.2 0.2 0.5 0.1 0.4

SWAMP

ROAD

1
2
3
4

1.0 1.3 1.2 1.0 2.0 1.8 1.6 1.1 0.6 1.6 1.8 1.8 2.1 0.9 3.4 2.1 1.9 2.9

1.3 0.9 2.5 1.1 2.3 2.5 2.0 1.4 1.0 1.4 2.3 1.7 1.6 1.1 2.2 3.4 1.4 2.6 3.4

2.4 1.1 1.7 1.6 2.6 2.3 2.4 1.8 1.6 1.1 2.1 2.0 -0.4 1.1 2.3 1.5 2.8 2.1 3.4

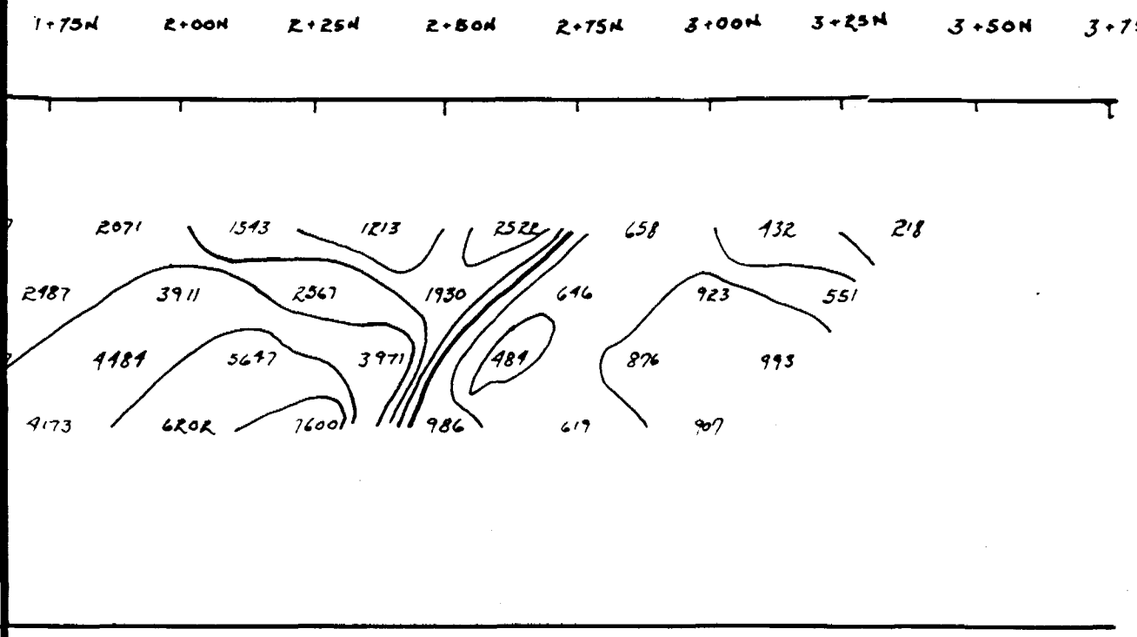
2.5 2.4 1.6 0.6 2.9 2.6 2.4 3.3 1.6 1.7 2.1 2.2 -1.3 0.7 2.4 1.8 1.5 3.1 2.9 4.6

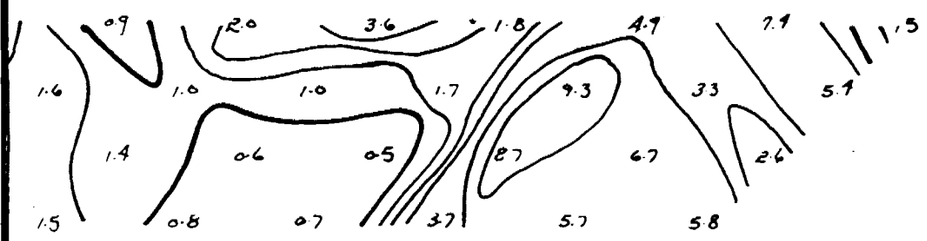
1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25N 3+50N 3+75

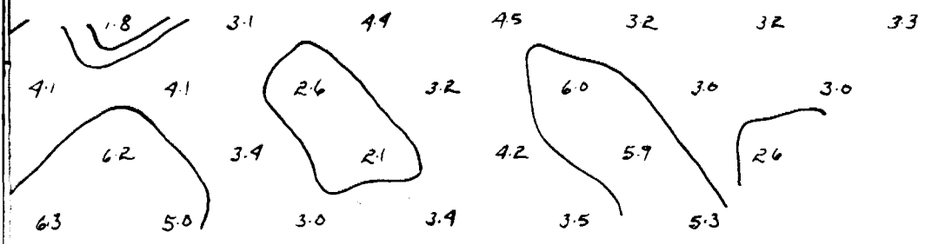
9117 12,825 5628 3193 4192 3596 6565 3325 2731 5369 5575 2427 2071 1543 1213 2522 658 432 218
16,250 7777 5437 3114 4758 7031 6147 4044 5365 7006 3265 2487 3911 2567 1930 646 923 551
7363 13277 6579 4512 3528 8244 7057 6582 7264 6562 4235 2527 4484 5647 3971 484 876 993
8092 9997 4855 5338 5767 7396 7158 10310 7875 4063 3070 4173 6808 7600 986 619 907

0.1 0.1 1.0 1.3 0.7 1.1 0.6 0.9 0.8 0.6 0.7 2.1 0.9 2.0 3.6 1.8 4.9 7.1 1.5
0.2 0.6 0.9 1.9 1.1 0.5 0.7 0.6 0.6 0.6 1.3 1.6 1.0 1.0 1.7 9.3 3.3 5.1
0.3 0.5 0.6 1.6 2.0 0.7 0.5 0.5 0.4 0.6 1.1 1.6 1.4 0.6 0.5 8.7 6.7 2.6
0.9 0.6 1.1 1.2 1.2 0.7 0.9 0.4 0.6 0.9 1.3 1.5 0.8 0.7 3.7 5.7 5.8

2.7 1.9 5.4 4.1 3.1 4.0 4.0 3.1 2.3 3.3 4.0 5.2 1.8 3.1 4.9 4.5 3.2 3.2 3.3
3.7 4.5 5.1 5.8 5.4 3.6 4.2 2.5 3.2 4.1 4.3 4.1 4.1 2.6 3.2 6.0 3.0 3.0
4.7 6.1 3.9 7.1 7.1 5.6 3.3 3.6 3.2 3.9 4.6 4.1 6.2 3.4 2.1 4.2 5.9 2.6
7.0 5.5 5.5 6.9 6.8 5.4 3.0 4.5 4.5 3.6 4.8 6.3 5.0 3.0 3.4 3.5 5.3







SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

e

M.F.

F.E.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0 m = Electrode Interval

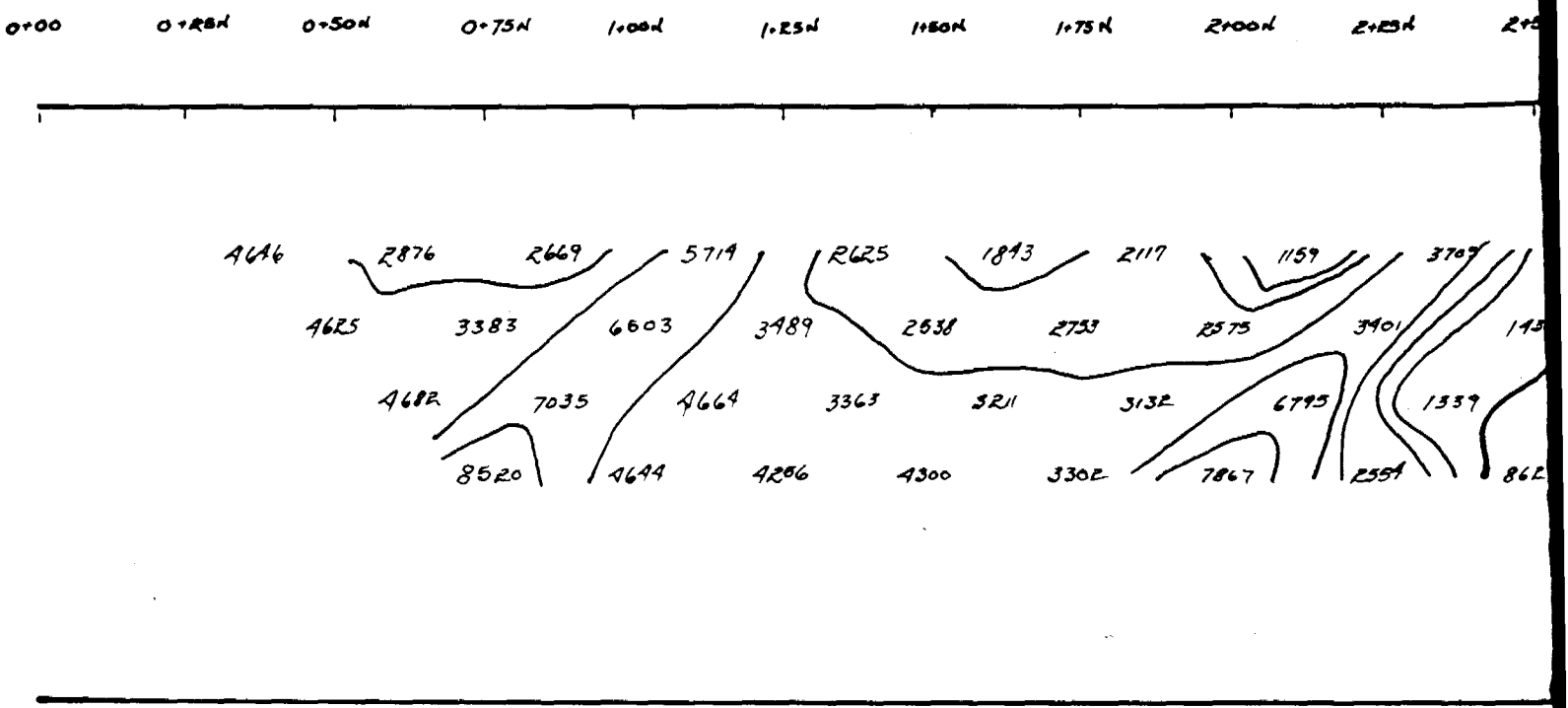
FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 8 W

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.


0+00
0+25N
0+50N
0+75N
1+00N
1+25N
1+50N
1+75N
2+00N
2+25N
4646
2876
2669
5719
R625
1893
2117
1159
3709
4625
3383
6603
3489
2638
2753
2575
3401
4682
7035
4664
3363
3211
3132
6795
1339
8520
4644
4286
4300
3302
7867
2554
0.8
0.8
1.5
0.5
1.0
2.2
1.3
1.8
1.6
0.7
0.8
0.6
1.0
1.7
2.1
0.6
1.2
4.2
0.8
0.9
1.0
1.3
2.0
1.4
0.5
2.2
0.5
0.7
1.8
1.7
1.5
0.7
1.0
3.9
3.6
2.1
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3.2
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3.9
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1.9
5.9
3.2
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3.7
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3.8
5.8
3.5
3.0
4.3
4.2
6.3
4.5
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7.0
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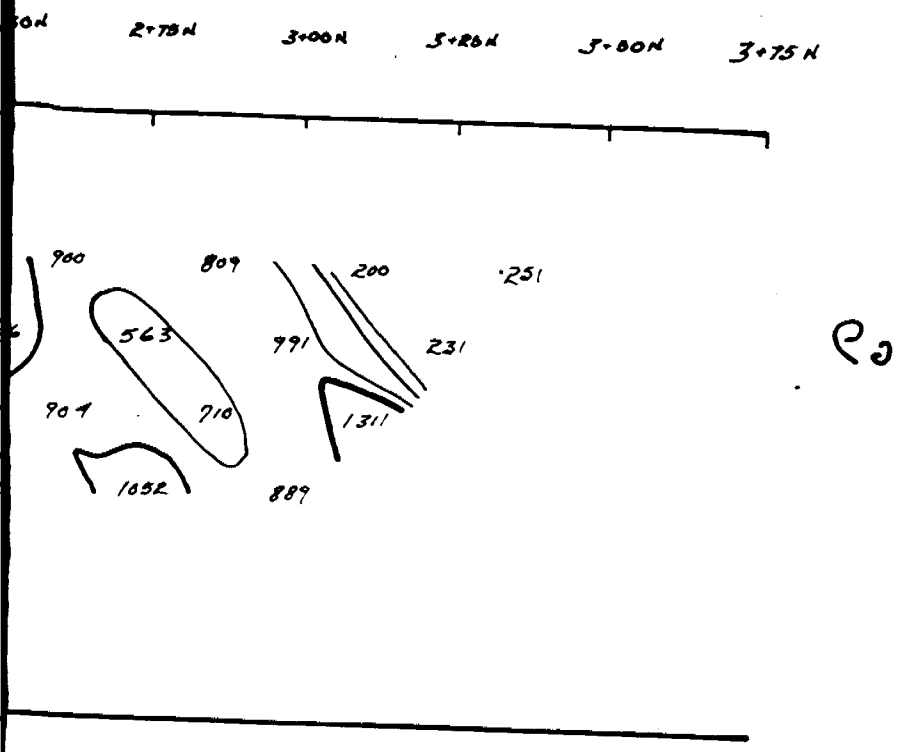
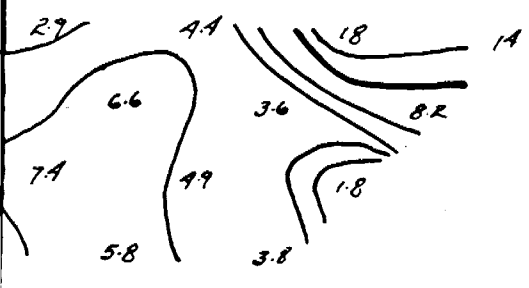
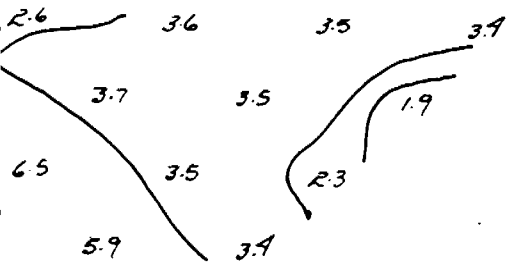
2.5
3.2





M.F.



F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

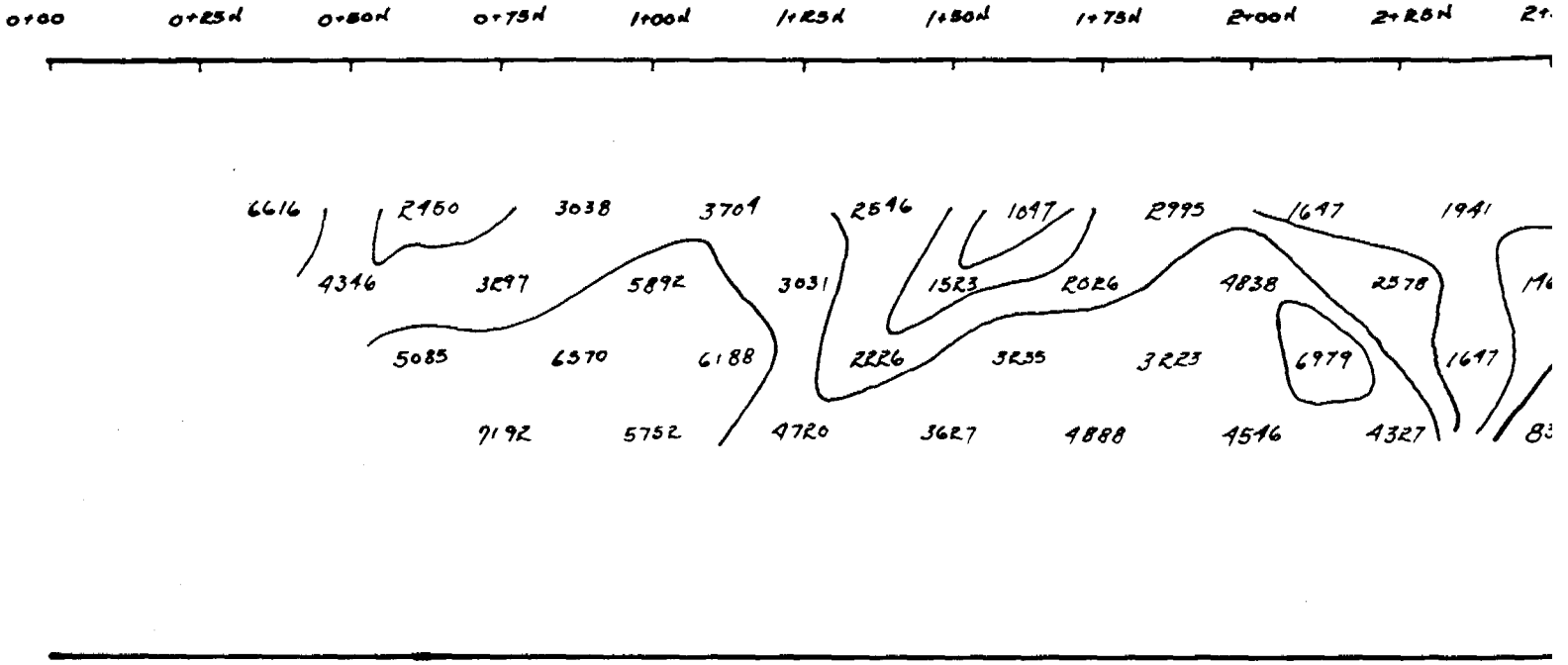
FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 8 + 50 W

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.


0+00
0+25N
0+50N
0+75N
1+00N
1+25N
1+50N
1+75N
2+00N
2+25N
6616
2450
3038
3709
2546
1697
2995
1647
1941
4346
3297
5892
3031
1523
2026
4838
2578
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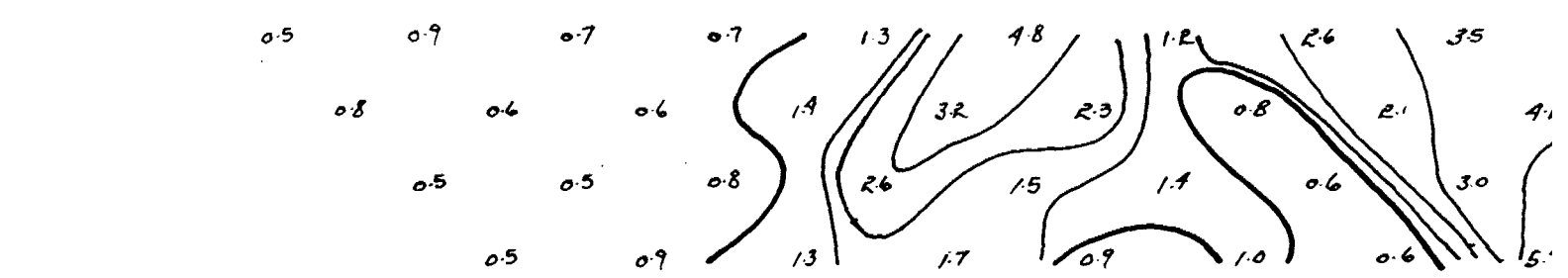
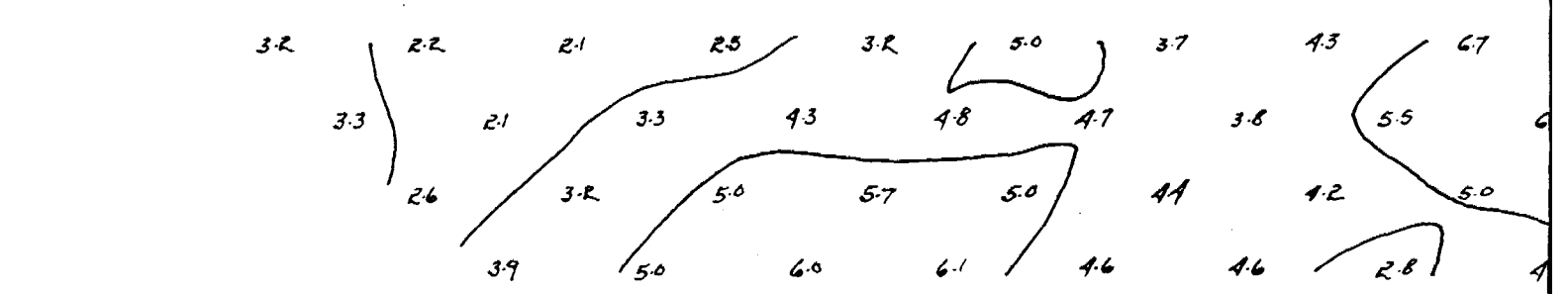
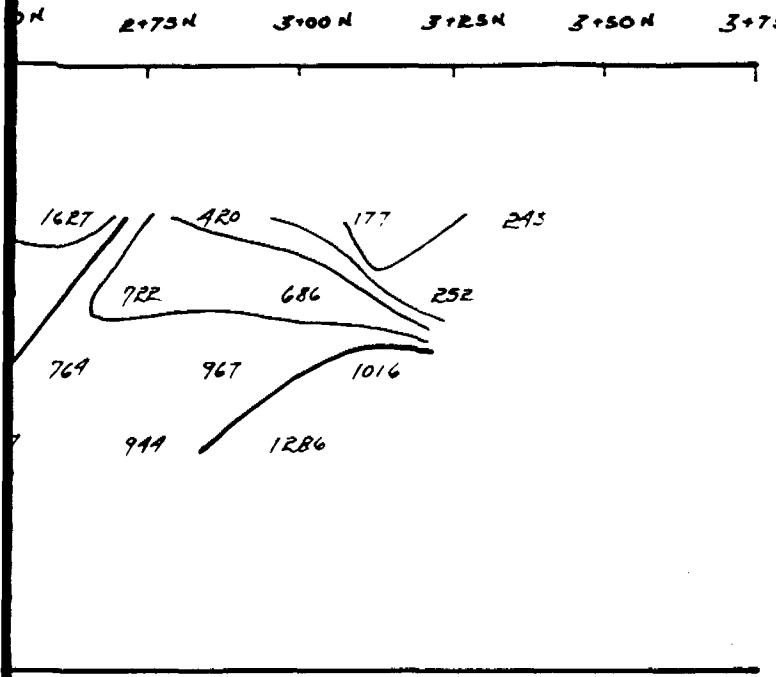
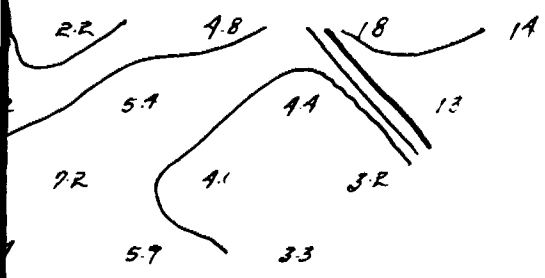
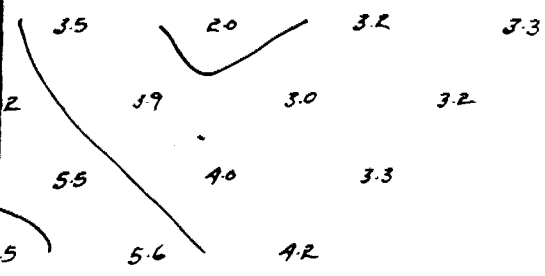
4546
4327


0.5
0.9
0.7
0.7
1.3
4.8
1.2
2.6
3.5
0.8
0.6
0.6
1.4
3.2
2.3
0.8
2.1
0.5
0.5
0.8
2.6
1.5
1.4
0.6
3.0
0.5
0.9
1.3
1.7
0.9
1.0
0.6


3.2
2.2
2.1
2.5
3.2
5.0
3.7
4.3
6.7
3.3
2.1
3.3
4.3
4.8
4.7
3.8
5.5
2.6
3.2
5.0
5.7
5.0
4.4
4.2
5.0
3.9
5.0
6.0
6.1
4.6
4.6
2.8







Q_3

LYNX CANADA
STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

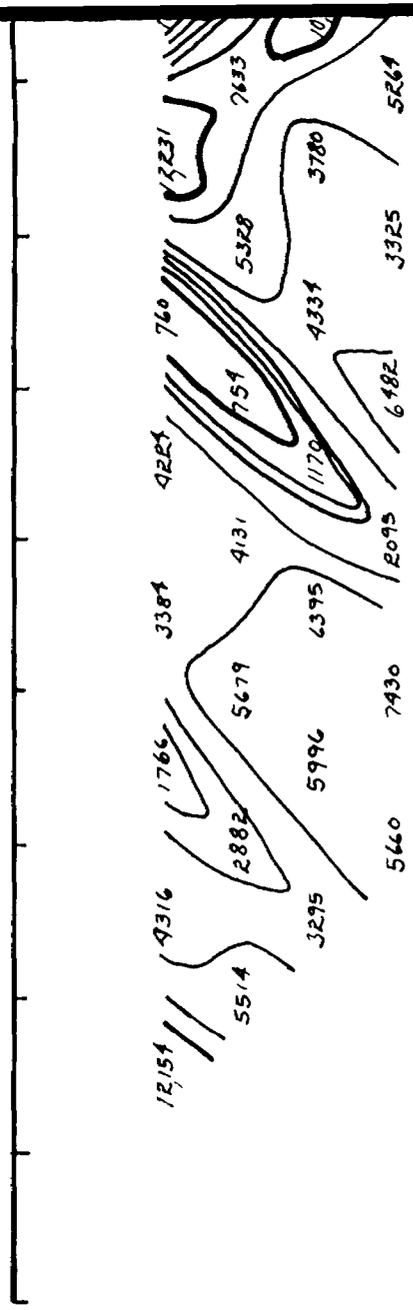
LINE: 9 W

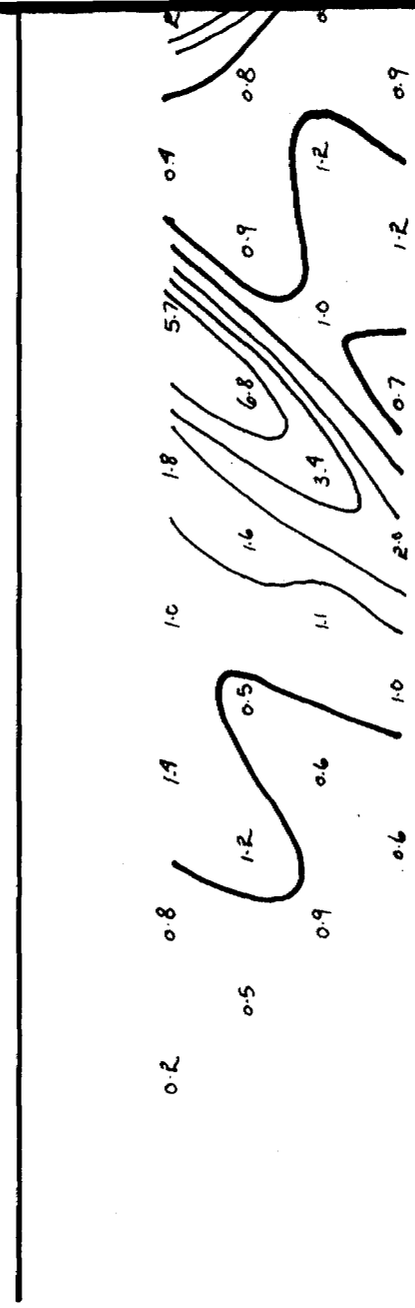
M.F.

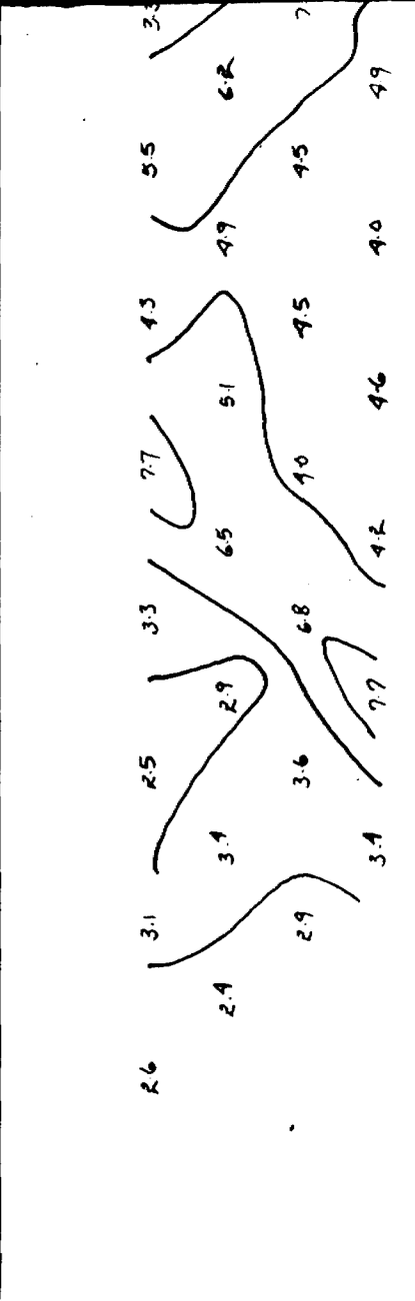
Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

F.E.

0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N



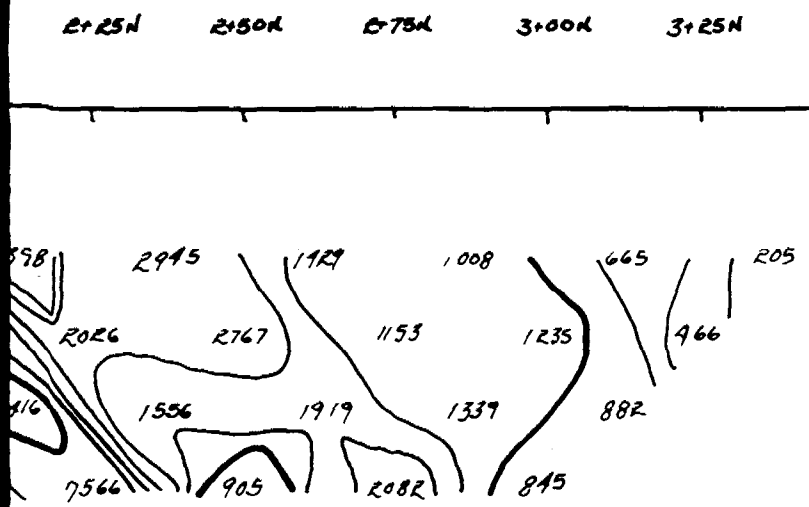


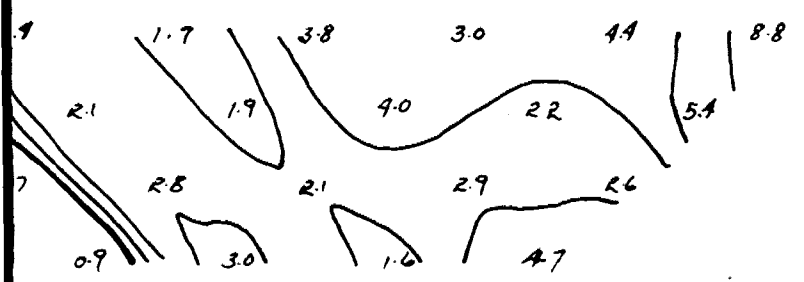


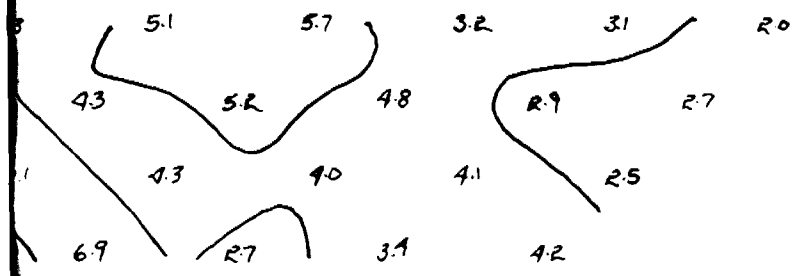
1/2 1/2 1/2 1/2

1/2 1/2 1/2 1/2

1/2 1/2 1/2 1/2







Ea

M.F.

F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

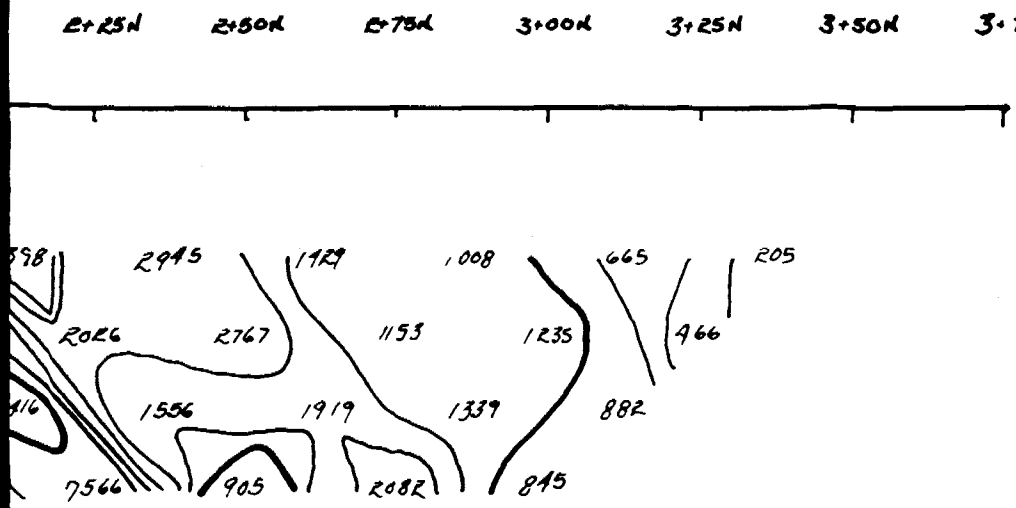
FREQUENCIES : 0·3 & 5·0 Hz.

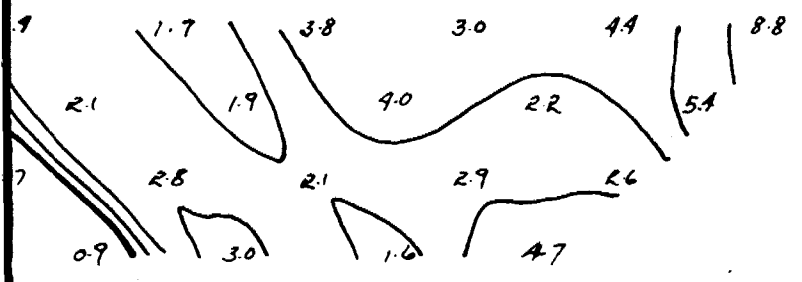
DATE:

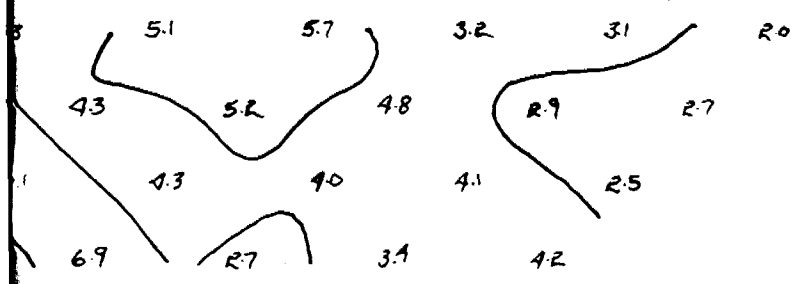
LINE: 10 W

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.







Ea

M.F.

F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 10 W

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.

0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25N 3+50N 3+75N

N-1 N-2 N-3 N-4

5590 4111 2440 2776 3969 6627 3019 3415 2192 3460 1349 930 712
6057 4933 3319 2416 2978 6437 5361 3252 2562 5694 2919 550 1357
3006 5032 3799 3307 2502 4976 5787 5436 2210 6220 4350 1063 798
4969 6976 3664 3976 3372 4614 4779 5962 3998 4676 4928 1405 1547

N-1 N-2 N-3 N-4

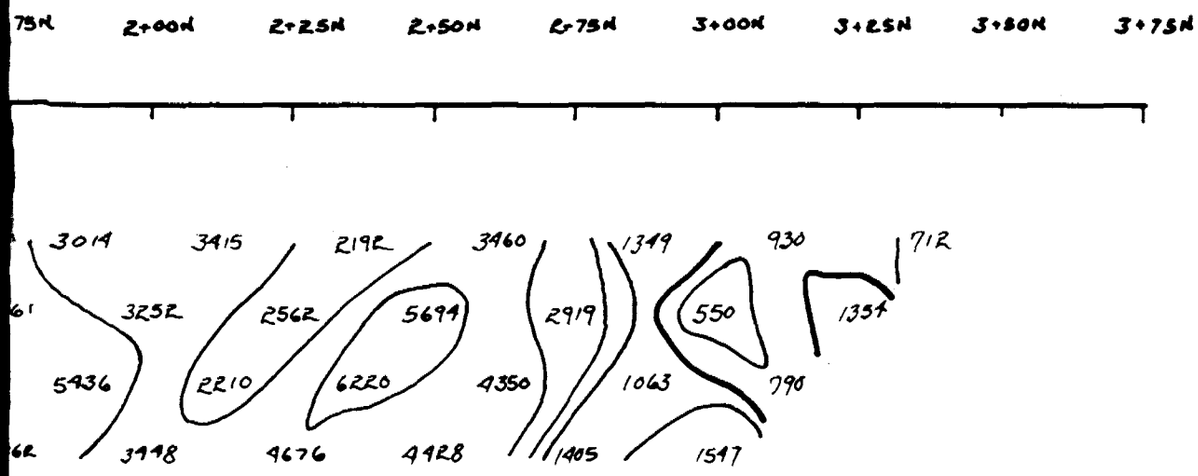
0.5 0.4 1.4 3.1 1.9 1.2 2.4 1.9 2.8 1.6 3.0 3.9 2.9
0.5 0.8 1.0 2.8 1.8 0.8 1.3 2.5 1.6 1.1 1.7 4.4 2.8
0.3 0.8 1.5 1.9 1.8 0.8 0.9 1.9 3.2 0.7 1.0 2.8 3.5
0.5 0.6 1.6 2.5 1.2 0.7 0.8 1.0 2.0 1.6 0.6 2.3 2.3

N-1 N-2 N-3 N-4

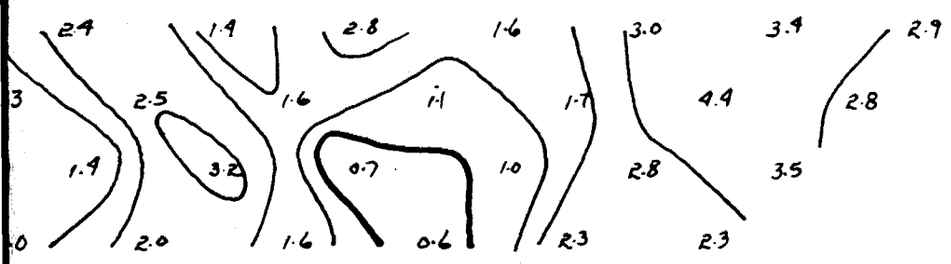
3.0 1.5 3.1 8.4 5.7 7.7 7.2 4.7 6.1 5.9 4.1 3.2 2.1
3.0 3.7 3.9 6.8 5.3 5.3 6.8 8.0 4.1 6.9 5.1 2.9 3.8
3.1 3.9 5.2 6.9 4.5 3.8 5.2 7.6 7.0 4.9 4.3 3.0 2.8
2.4 4.1 5.8 8.6 4.1 3.2 4.0 3.9 6.9 7.5 2.6 3.3 3.6

N

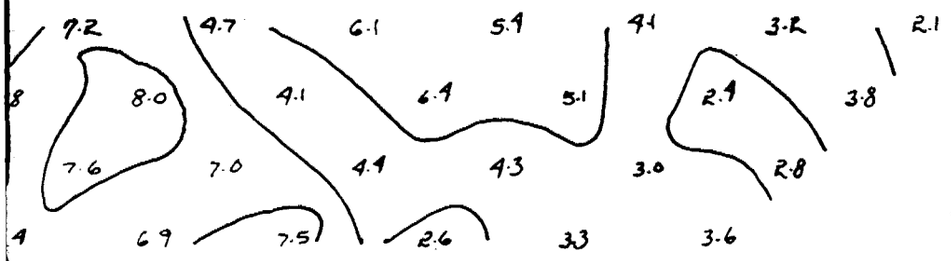
R



CD



MF



F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

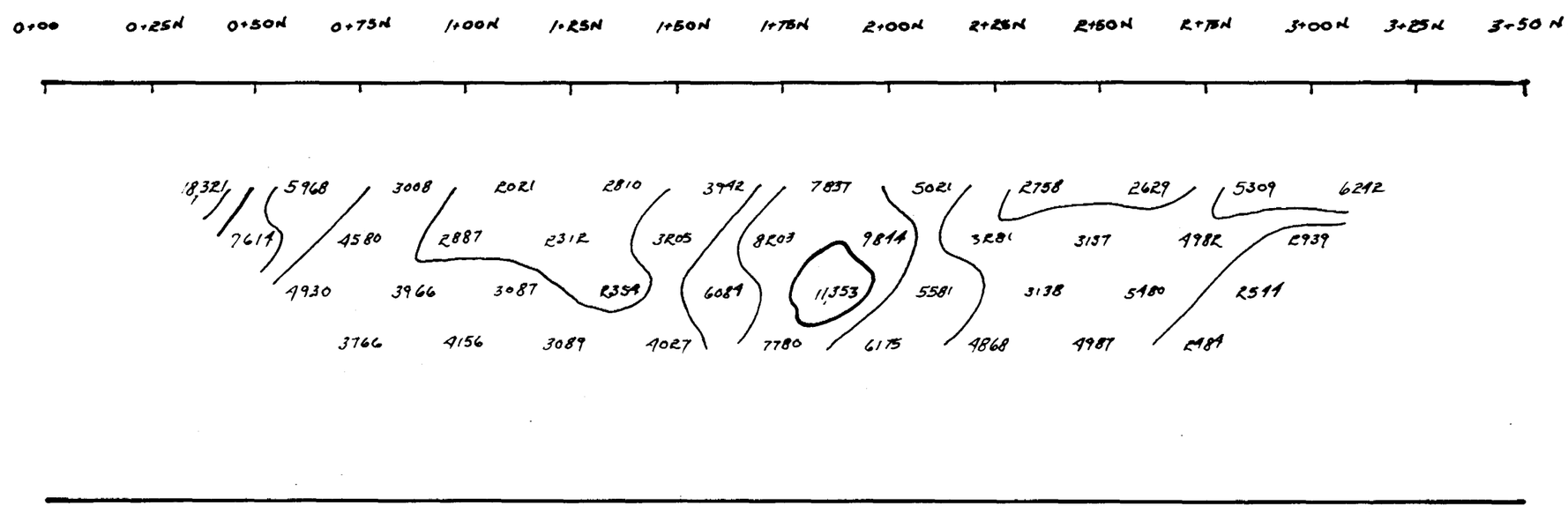
FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 10+50 W

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.


0+00
0+25N
0+50N
0+75N
1+00N
1+25N
1+50N
1+75N
2+00N
2+25N
2+50N
2+75N
3+00N
3+25N
3+50N
18321
5968
3008
2021
2810
3742
7837
5021
2758
2629
5309
6242
7611
4580
2887
2312
3205
8203
9814
3281
3137
4982
2939
4930
3966
3087
2359
6089
11353
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3138
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4027
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6175
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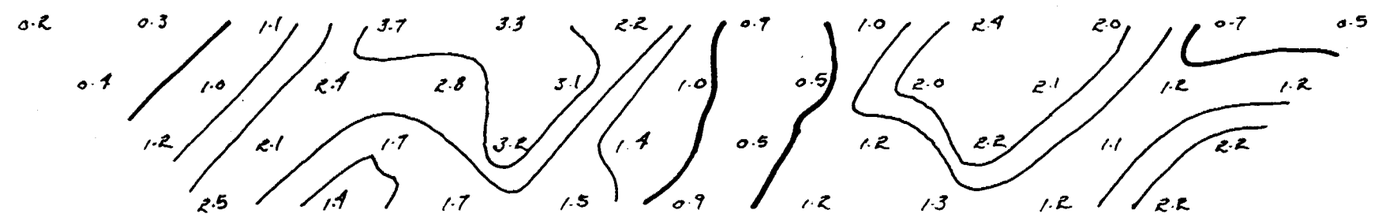
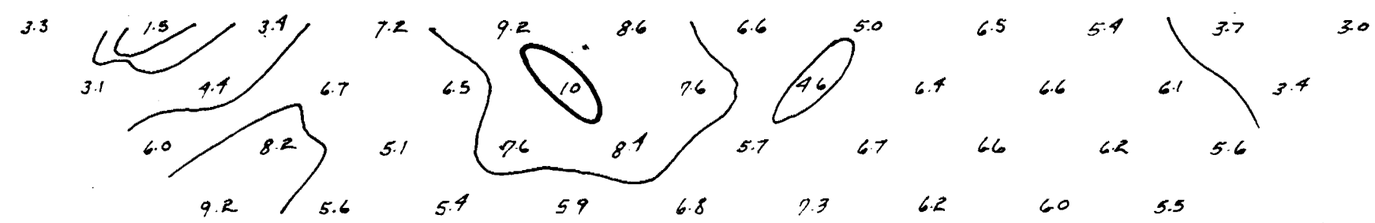
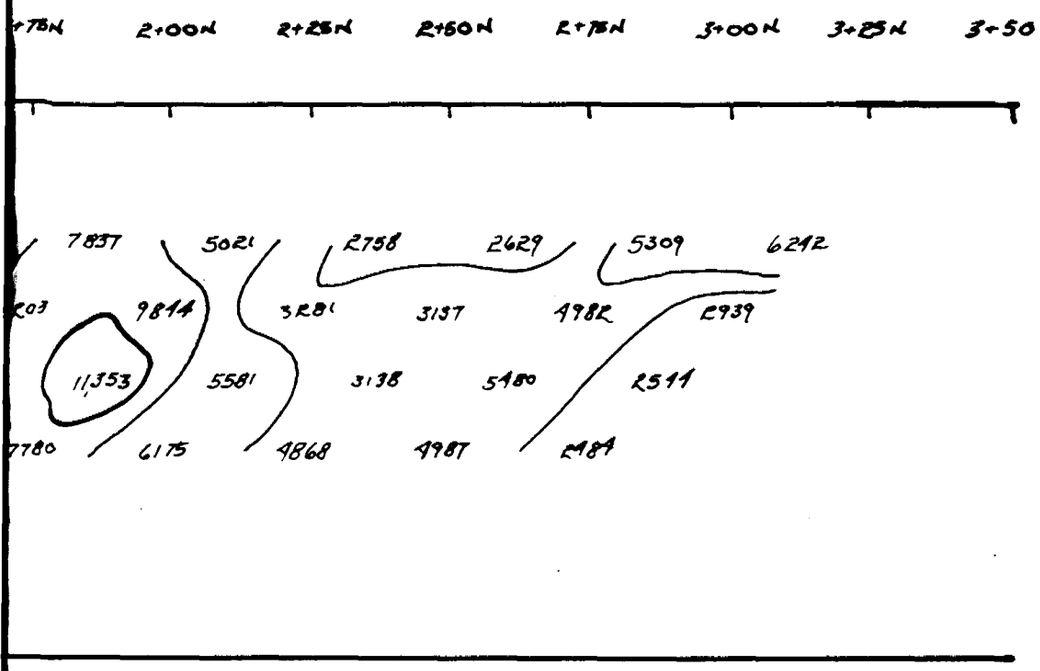
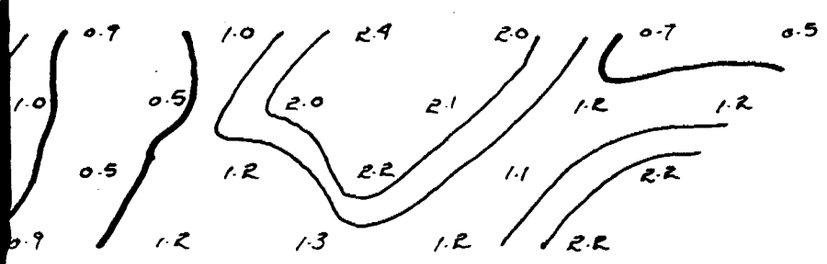
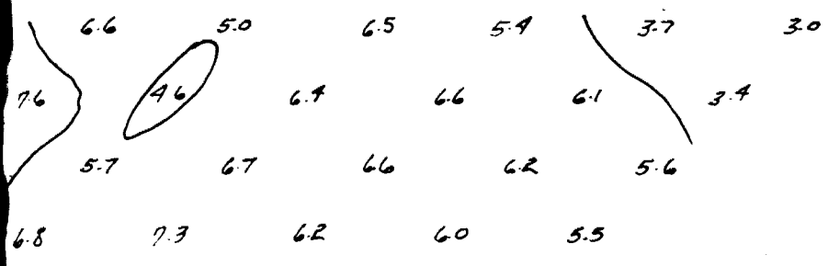
4987
2484


0.2
0.3
1.1
3.7
3.3
2.2
0.9
1.0
2.4
2.0
0.7
0.5
0.4
1.0
2.4
2.8
3.1
1.0
0.5
2.0
2.1
1.2
1.2
1.2
2.1
1.7
3.2
1.4
0.5
1.2
2.2
1.1
2.2
2.5
1.4
1.7
1.5
0.9
1.2
1.3
1.2
2.2


3.3
1.5
3.4
7.2
9.2
8.6
6.6
5.0
6.5
5.4
3.7
3.0
3.1
4.4
6.7
6.5
10
7.6
4.6
6.4
6.6
6.1
3.4
6.0
8.2
5.1
7.6
8.1
5.7
6.7
6.6
6.2
5.6
9.2
5.6
5.4
5.9
6.8
7.3
6.2
6.0
5.5







M.F.

F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

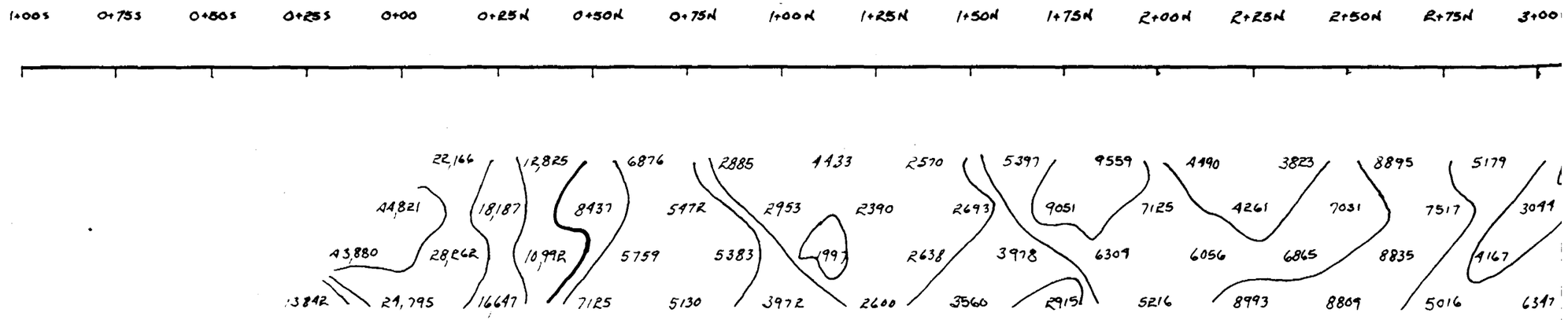
FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 11 W

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.


1+00S
0+75S
0+50S
0+25S
0+00
0+25N
0+50N
0+75N
1+00N
1+25N
1+50N
1+75N
2+00N
2+25N
2+50N
2+75N
3+00
22,166
12,825
6876
2885
1133
2570
5397
9559
4490
3823
8895
5179
44,821
18,187
8437
5472
2953
2390
2693
9051
7125
4261
7031
7517
3099
43,880
28,262
10,992
5759
5383
997
2638
3978
6309
6056
6865
8835
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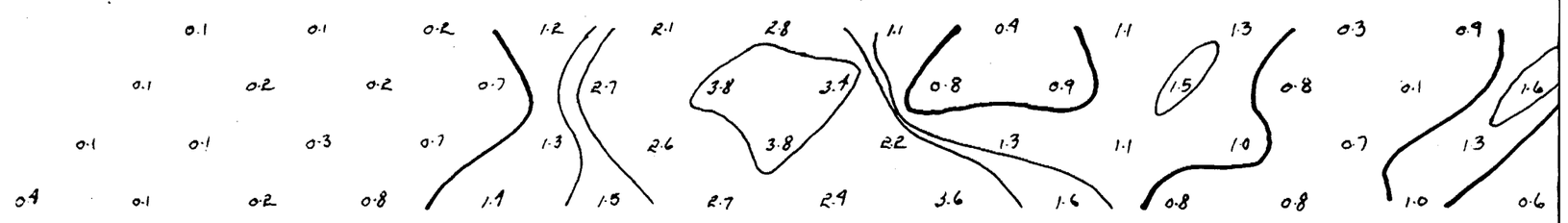
5016
6347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0.2
0.1
0.2
0.2
0.7
1.2
2.7
2.1
2.8
3.8
3.7
1.1
0.9
0.8
0.9
1.1
1.5
1.3
0.8
0.3
0.9
0.1
1.6
0.1
0.1
0.2
0.3
0.7
1.3
2.6
3.8
2.2
1.3
1.1
1.0
0.7
1.3
0.9
0.1
0.2
0.8
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1.5
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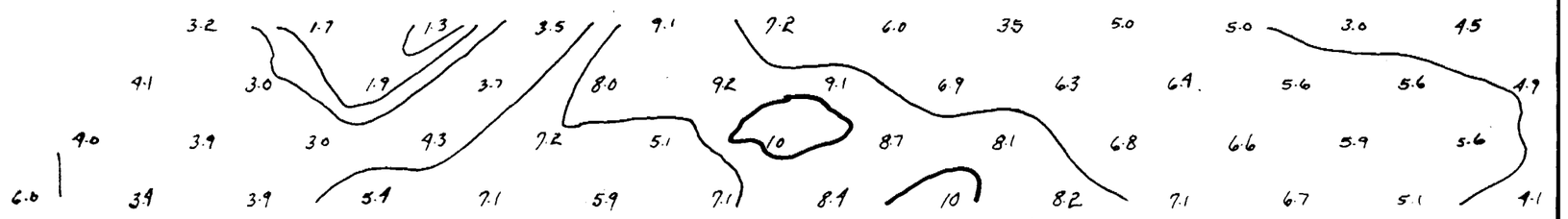
3.6
1.6
0.8
0.8
1.0
0.6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1.3
3.5
9.1
7.2
6.0
35
5.0
5.0
3.0
4.5
4.1
3.0
1.9
3.7
8.0
9.2
9.1
6.9
6.3
6.9
5.6
5.6
4.9
4.0
3.9
3.0
9.3
7.2
5.1
10
8.7
8.1
6.8
6.6
5.9
5.6
6.6
3.9
3.9
5.1
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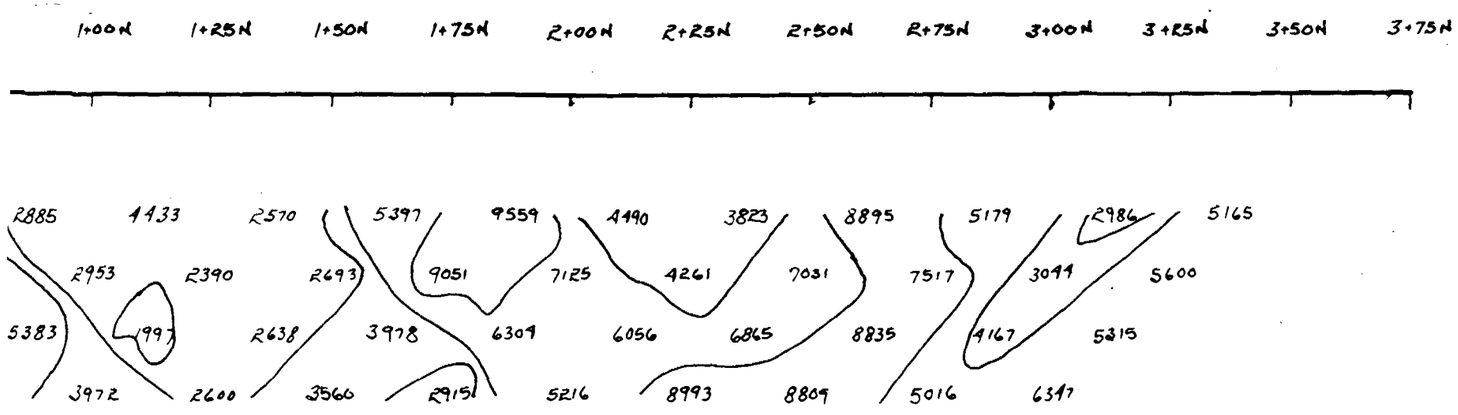
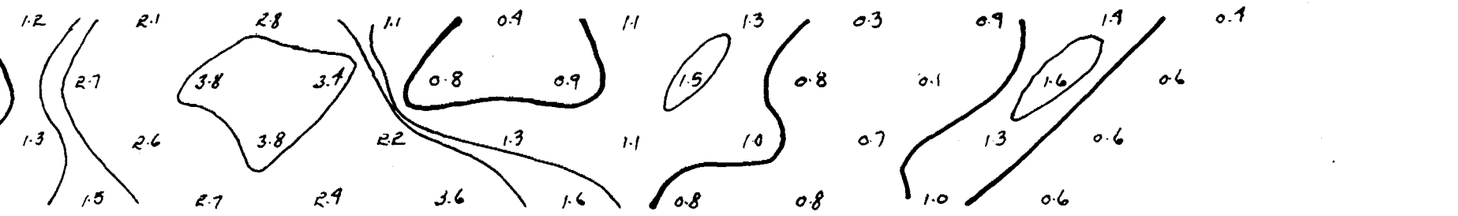
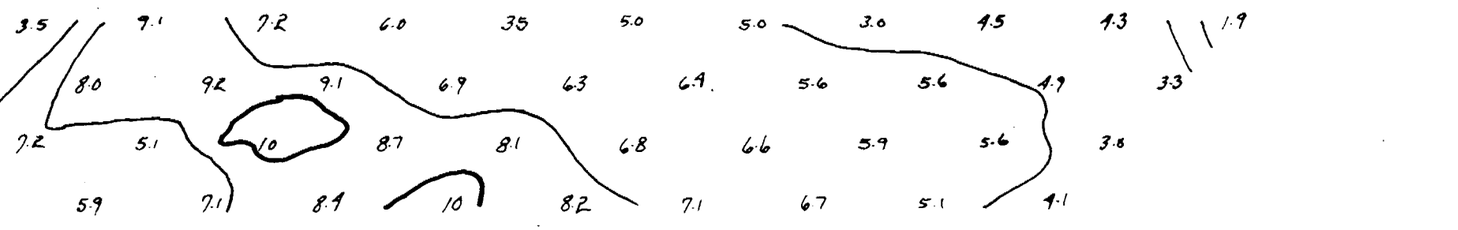
6.7
5.1
4.1







SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 12 W

M.F.

F.E.

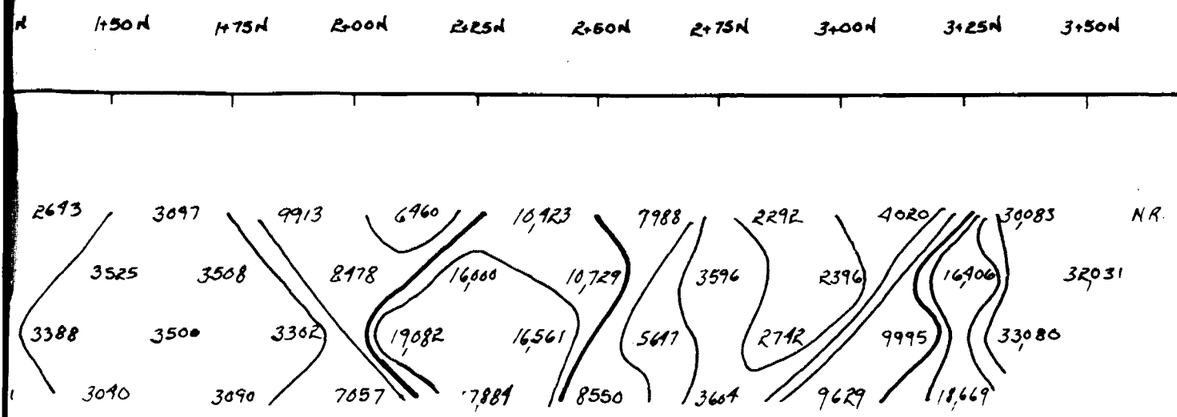
Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

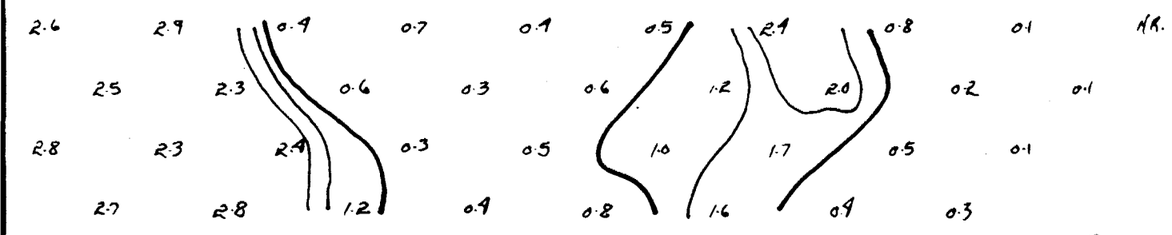
1+00S 0+75S 0+50S 0+25S 0+00 0+25N 0+50N 0+75N 1+00N 1+25N 1+50N 1+75N 2+00N 2+25N 2+50N 2+75N 3+00N 3+25N 3+50N 3+75N

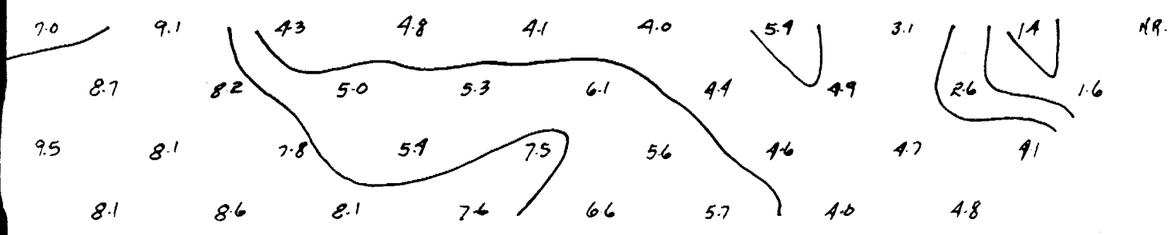
5686 3884 3175 7305 2693 3097 9913 6960 10,123 7988 2292 4020 30083 N.R.
10,147 6046 4223 5580 2771 3525 3508 8478 16,000 10,729 3596 2396 16,406 32031
16,205 9873 6000 6310 2636 3388 3500 3362 19082 16,561 5647 2742 9995 33080
13,911 14,351 9150 8052 2825 2831 3090 3090 7057 17,889 8550 3604 9629 18,669

0.9 0.1 1.6 0.7 2.6 2.9 0.9 0.7 0.1 0.5 2.1 0.8 0.1 N.R.
0.3 0.5 1.3 0.8 3.2 2.5 2.3 0.6 0.3 0.6 1.2 2.0 0.2 0.1
0.9 0.4 1.1 0.7 2.8 2.8 2.3 2.4 0.3 0.5 1.0 1.7 0.5 0.1
0.2 0.3 0.8 0.6 2.3 2.7 2.7 2.8 1.2 0.9 0.8 1.6 0.9 0.3

2.1 1.5 4.9 4.8 7.0 9.1 4.3 4.8 4.1 4.0 5.9 3.1 1.4 N.R.
2.9 3.1 5.3 4.1 8.8 8.7 8.2 5.0 5.3 6.1 4.4 4.9 2.6 1.6
3.0 3.5 6.1 4.4 7.9 9.5 8.1 7.8 5.9 7.5 5.6 4.6 4.7 4.1
2.9 3.9 6.8 5.1 6.6 7.6 8.1 8.6 8.1 7.4 6.6 5.7 4.0 4.8







SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

P.J.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0 m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

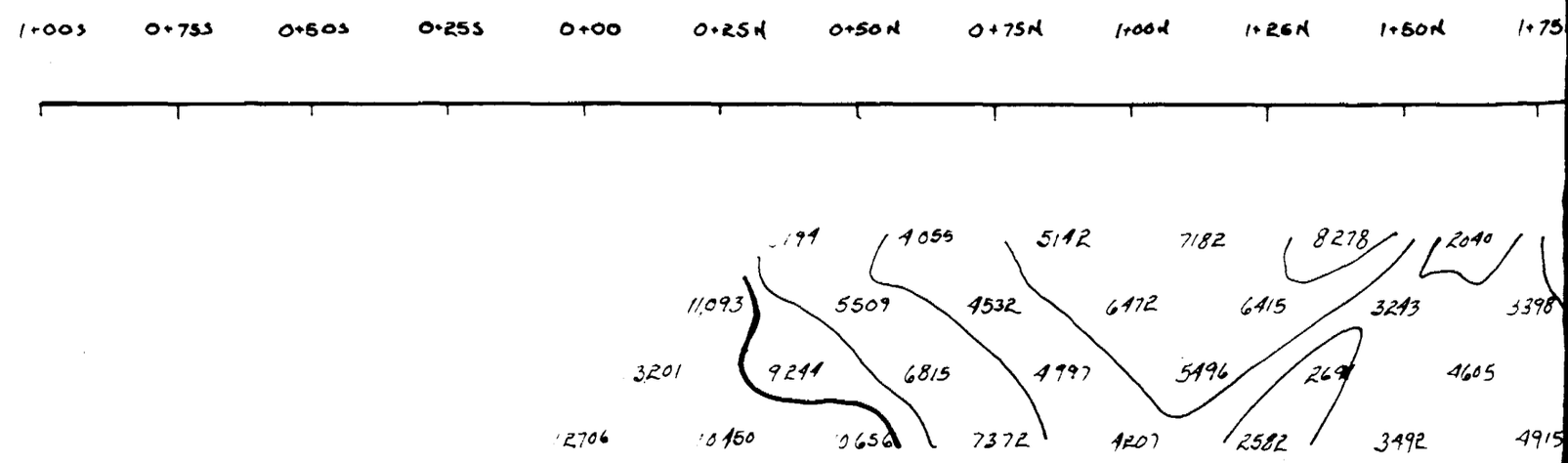
DATE:

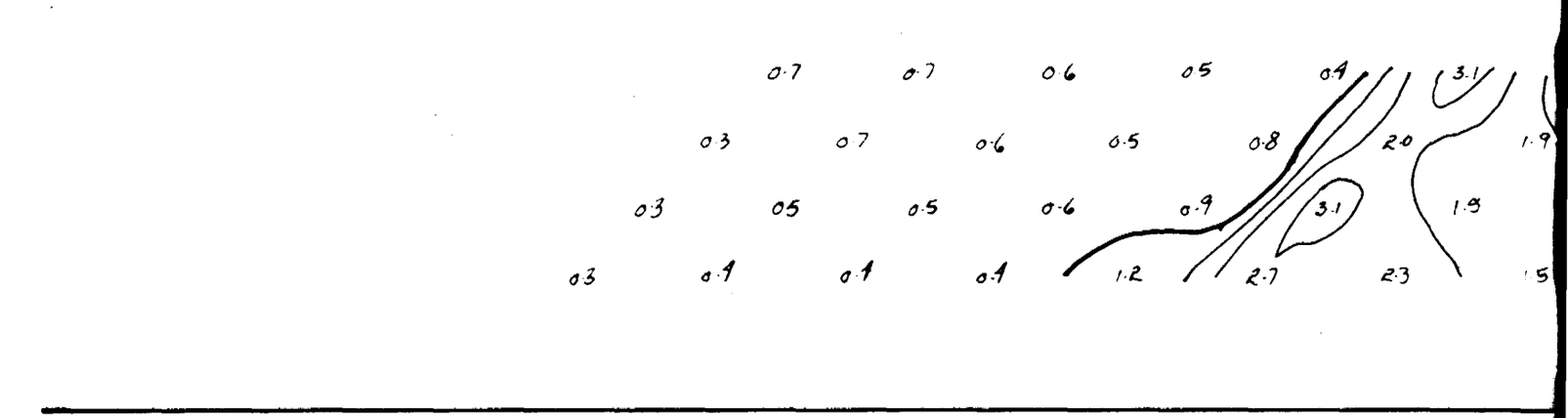
LINE: 13 W

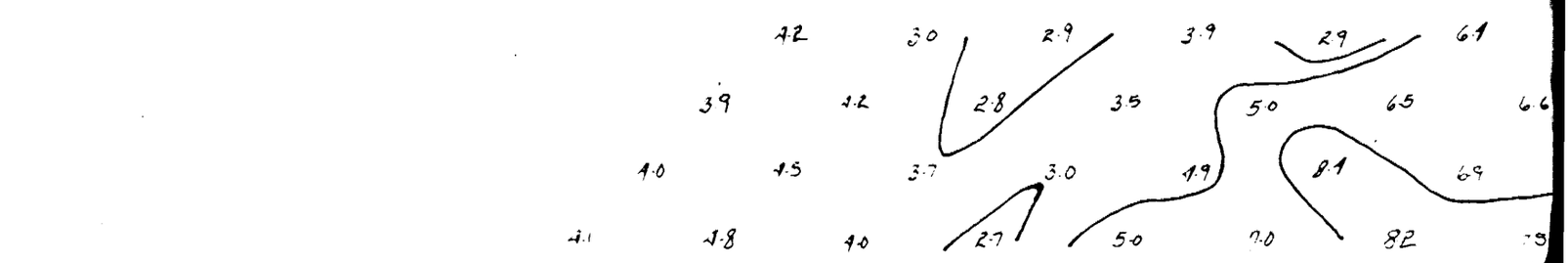
M.F.

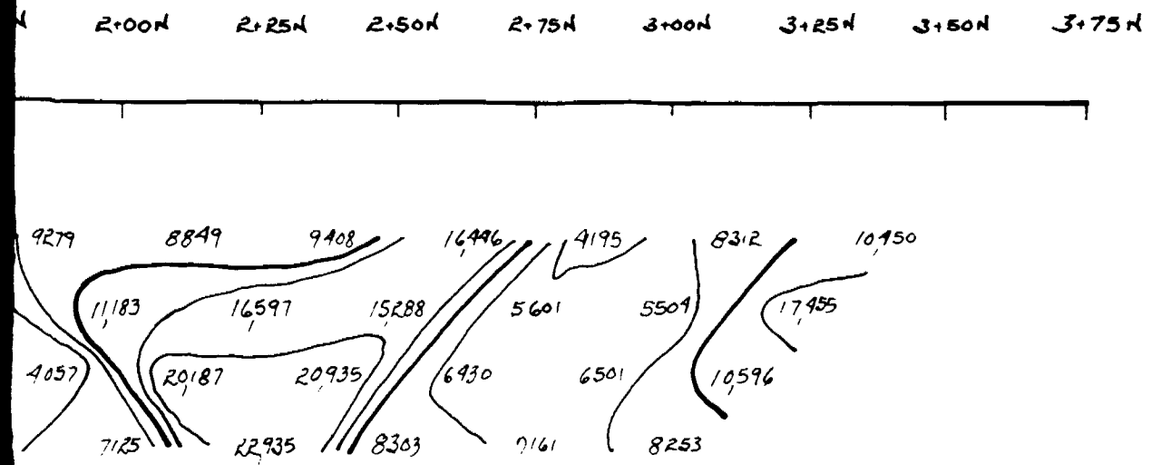
Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

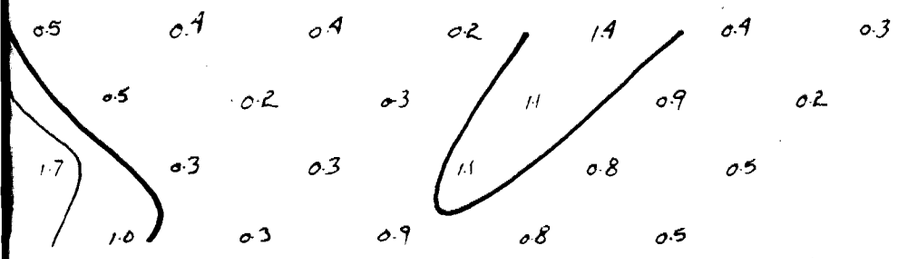
F. E.

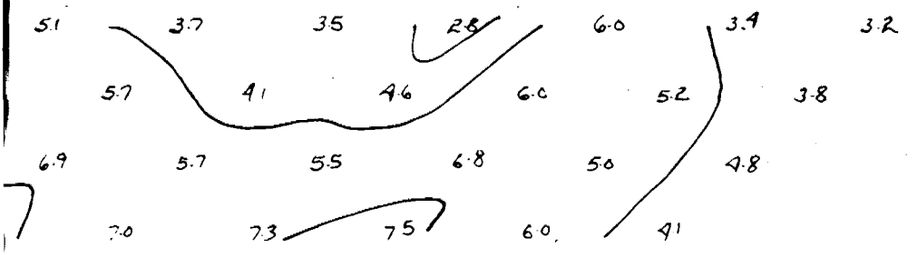

1+00S
0+75S
0+50S
0+25S
0+00
0+25N
0+50N
0+75N
1+00N
1+25N
1+50N
1+75
11,093
5509
4532
6472
6415
3243
3398
3201
9244
6815
4997
5496
4605
12706
10150
9656
7372
4207
2582
3492
4915
4055
5142
7182
8278
2040


0.7
0.7
0.6
0.5
0.4
3.1
0.3
0.7
0.6
0.5
0.8
2.0
1.9
0.3
0.5
0.5
0.6
0.9
3.1
1.8
0.3
0.1
0.1
0.1
1.2
2.7
2.3
1.5


4.2
3.0
2.9
3.9
2.9
6.1
3.9
4.2
2.8
3.5
5.0
6.5
6.6
1.0
4.5
3.7
3.0
4.9
8.1
6.9
4.1
4.8
4.0
2.7
5.0
7.0
8.2







SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

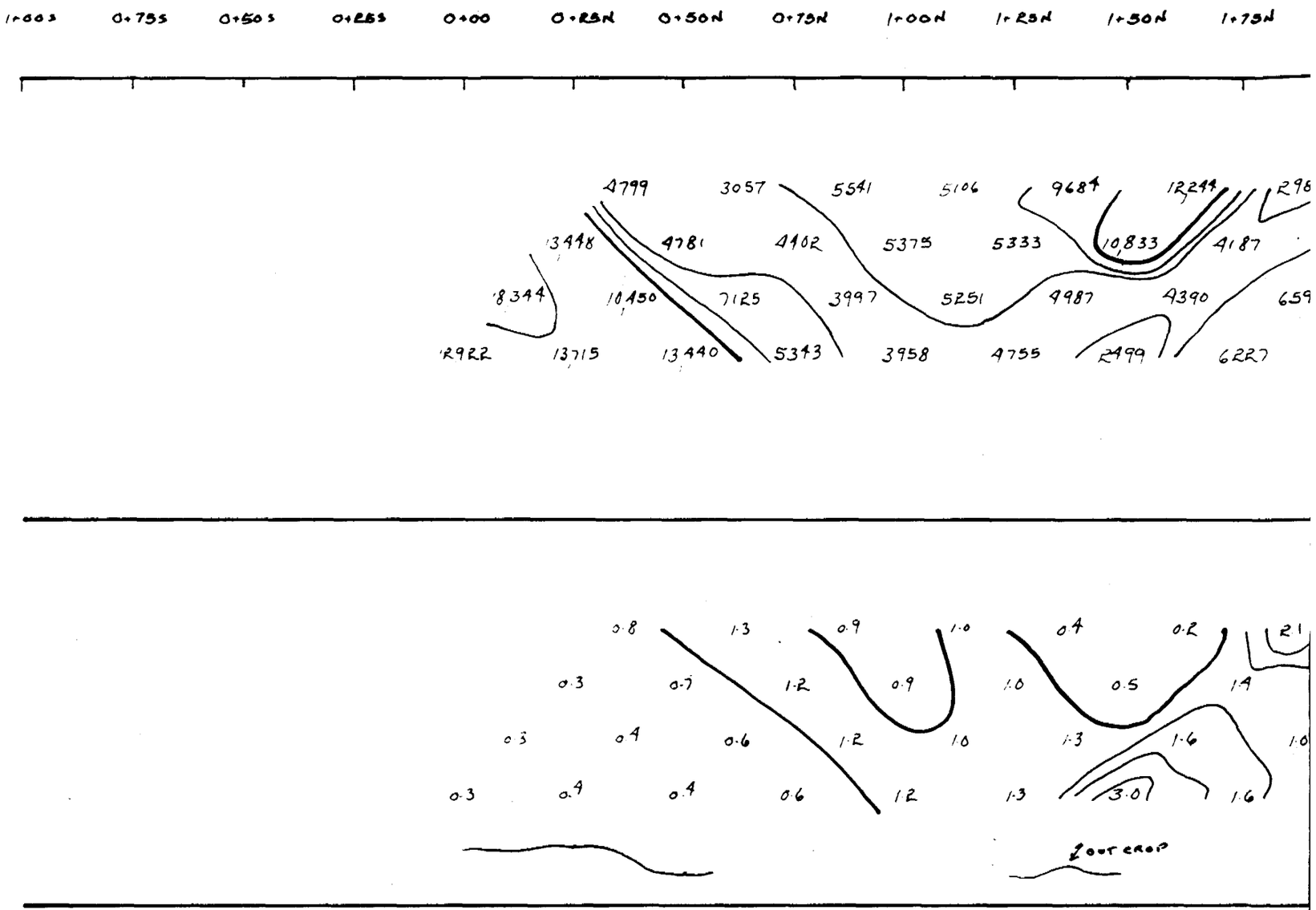
LINE: 14 W

M.F.

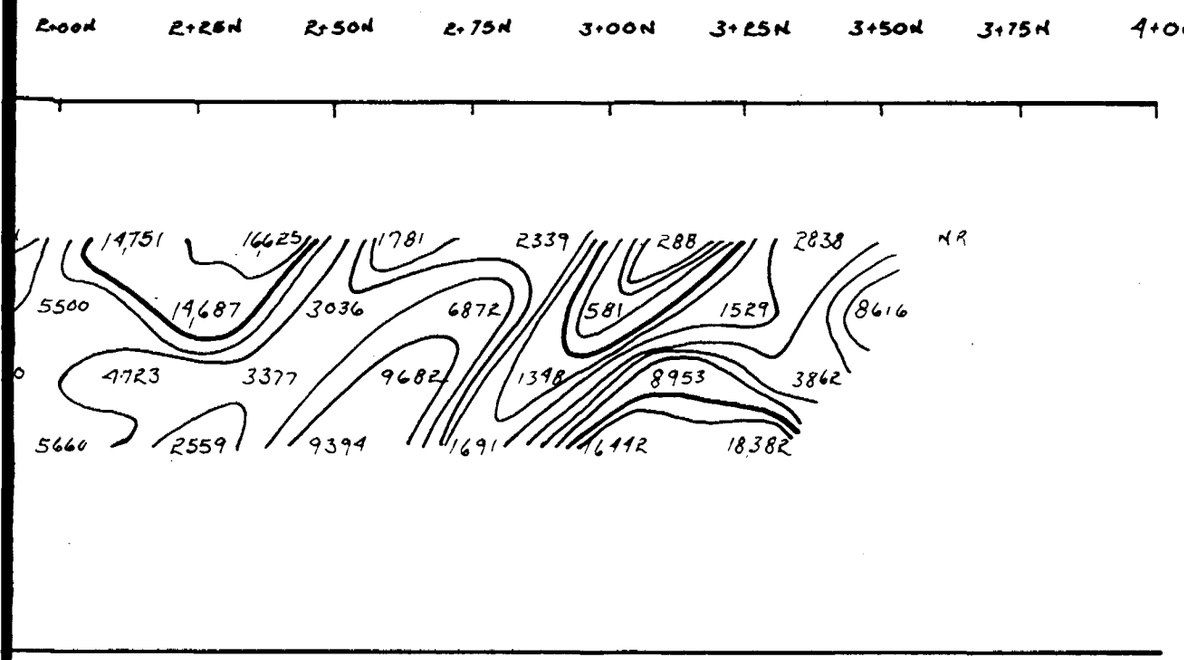
F.E.

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.


1+00S
0+75S
0+50S
0+25S
0+00
0+25N
0+50N
0+75N
1+00N
1+25N
1+50N
1+75N
4799
3057
5541
5106
9684
12,299
3448
4781
4102
5375
5333
10,833
4187
8344
10,150
7125
3997
5251
4987
4390
659
R922
13715
13440
5343
3958
4755
2499
6227
0.8
1.3
0.9
1.0
0.4
0.2
0.3
0.7
1.2
0.9
1.0
0.5
1.4
0.3
0.4
0.6
1.2
1.0
1.3
1.6
1.0
0.3
0.4
0.4
0.6
1.2
1.3
3.0
1.6
Sour crop
3.6
3.9
4.9
5.1
3.6
2.9
1.5
3.5
5.4
5.0
5.9
4.9
6.0
5.1
4.5
4.3
4.7
5.1
6.7
7.1
4.2
5.0
5.0
3.3
4.8
6.4
7.6
7.2

SPARTON RESOURCES INC



Ca

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

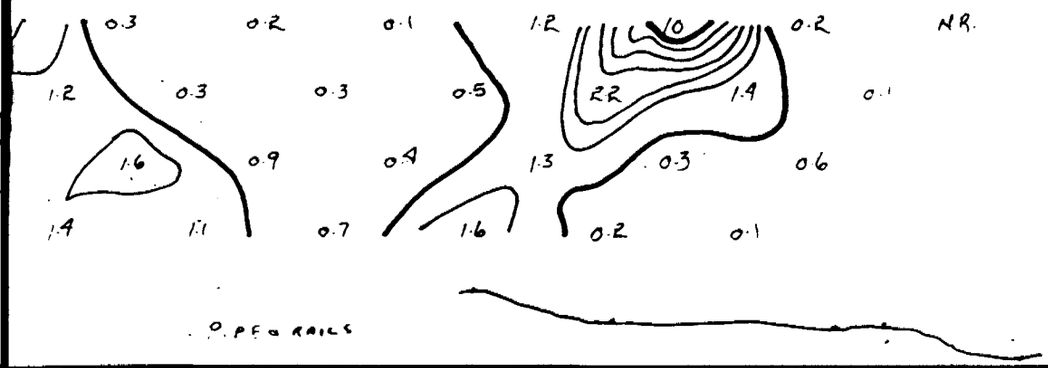
HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

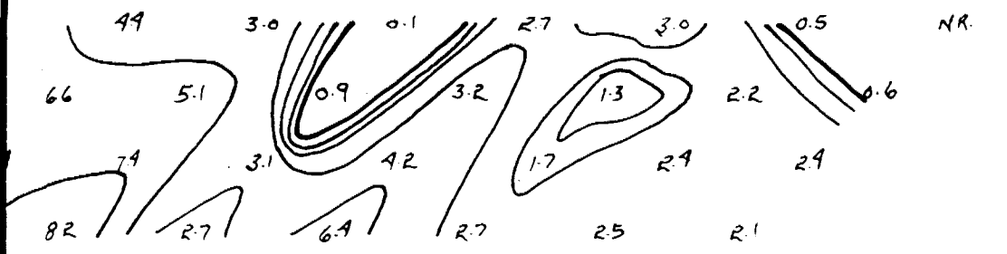
FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 15 W

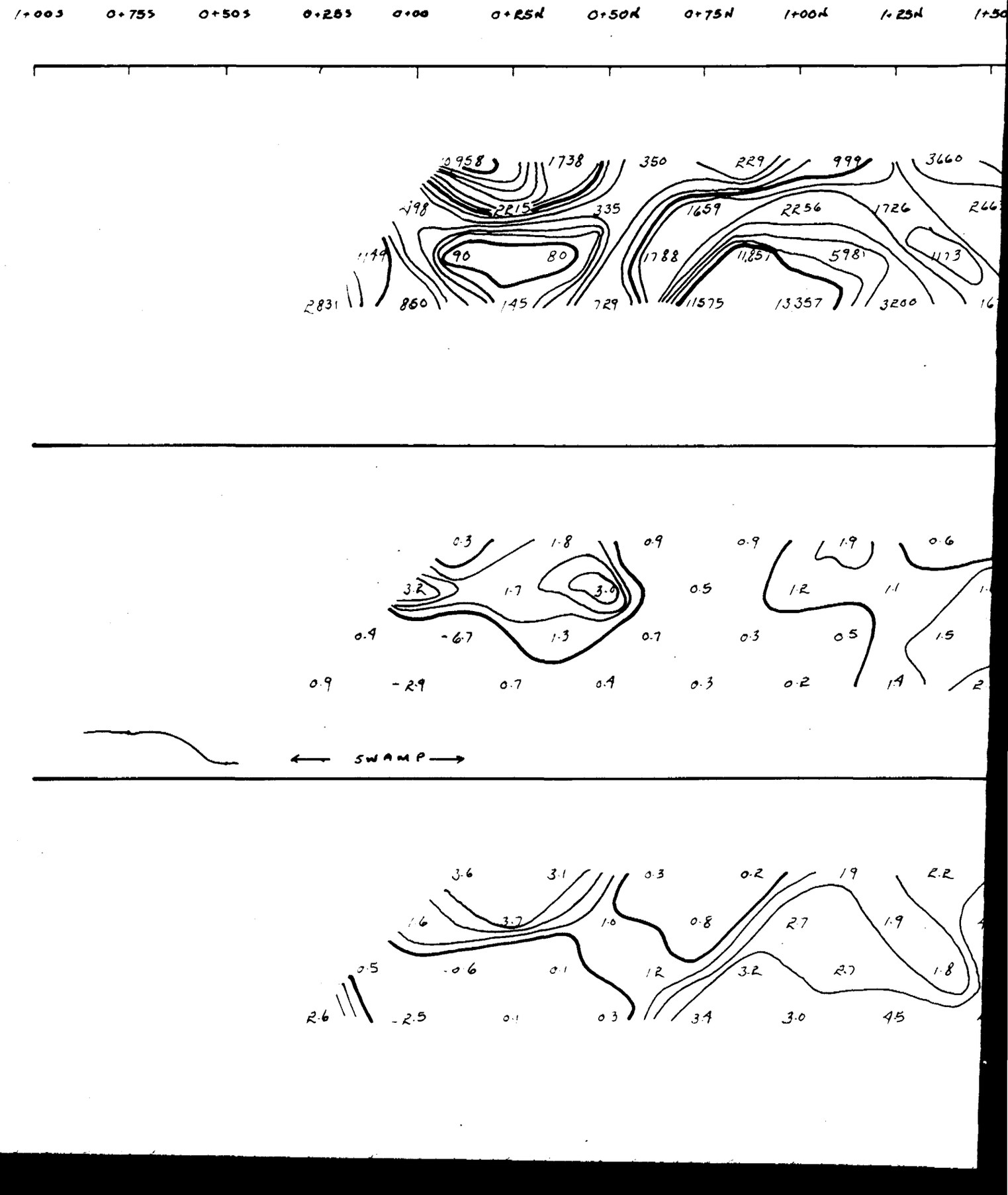


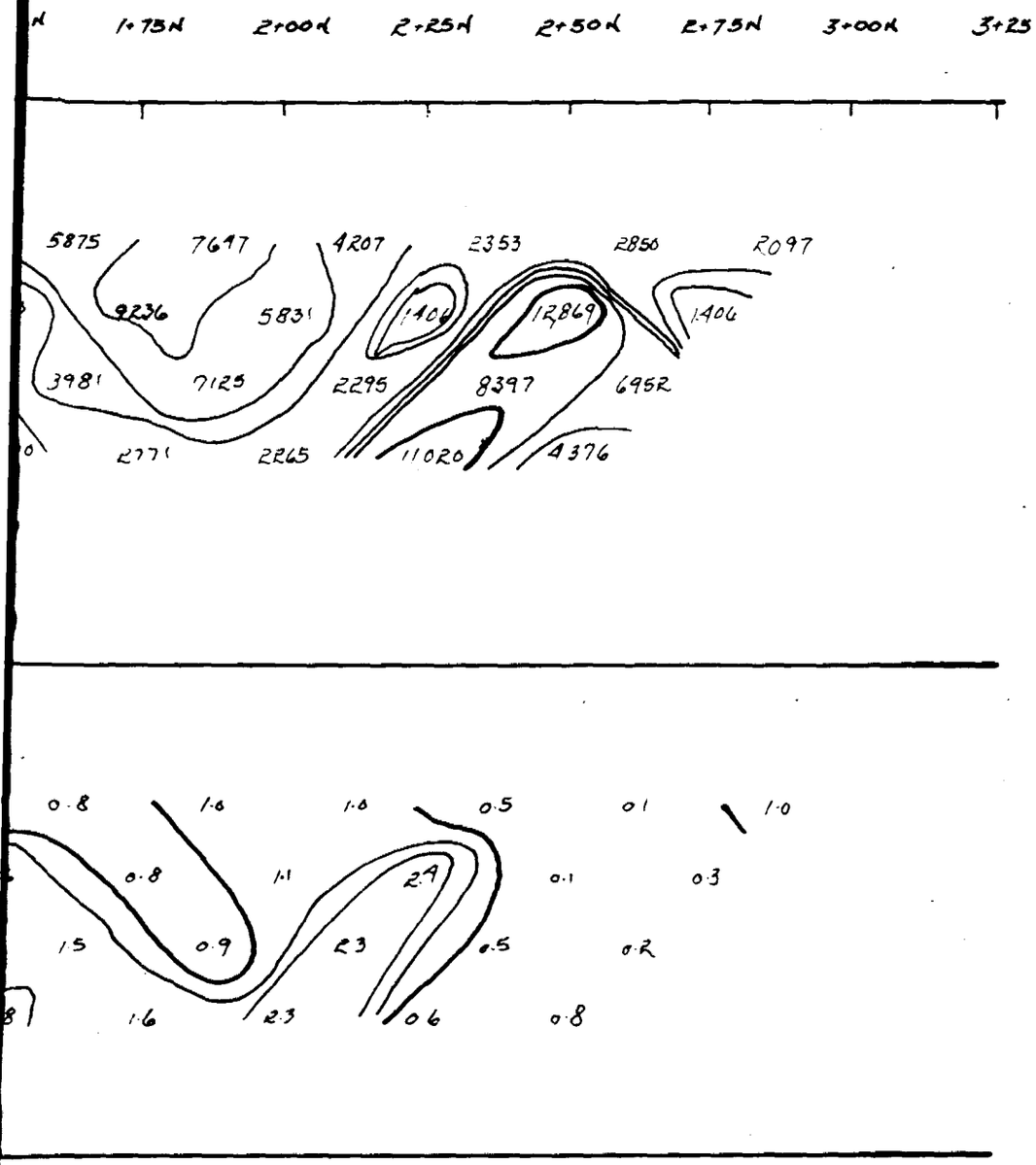
M.F.



F. E.

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.


1+00S
0+75S
0+50S
0+25S
0+00
0+25N
0+50N
0+75N
1+00N
1+25N
1+50
10958
1738
350
229
999
3660
198
2215
335
1659
2256
1726
266
1749
90
80
1788
11,851
5981
1173
2831
860
145
729
11575
13357
3200
0.3
1.8
0.9
0.9
1.9
0.6
3.2
1.7
3.0
0.5
1.2
1.1
0.9
-6.7
1.3
0.7
0.3
0.5
1.5
0.9
-2.9
0.7
0.4
0.3
0.2
1.4
SWAMP
3.6
3.1
0.3
0.2
1.9
2.2
1.6
3.7
1.0
0.8
2.7
1.9
0.5
-0.6
0.1
1.2
3.2
2.7
1.8
2.6
-2.5
0.1
0.3
3.4
3.0
4.5



Ra

M.F.

F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

H P I P SURVEY (DIPOLE - DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

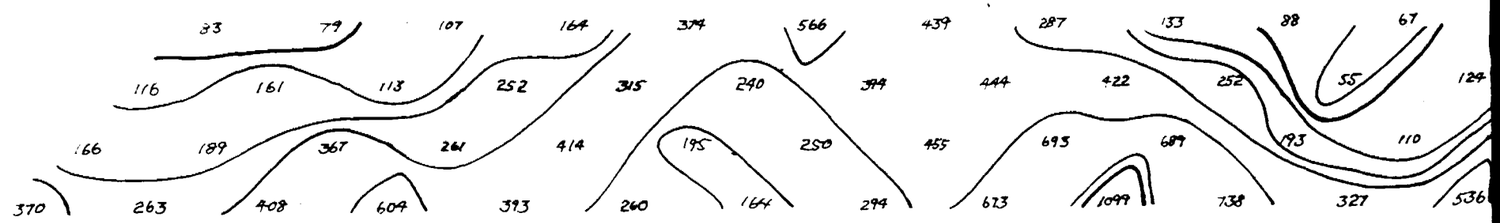
LINE : 16 W

Mertens & MacNeil

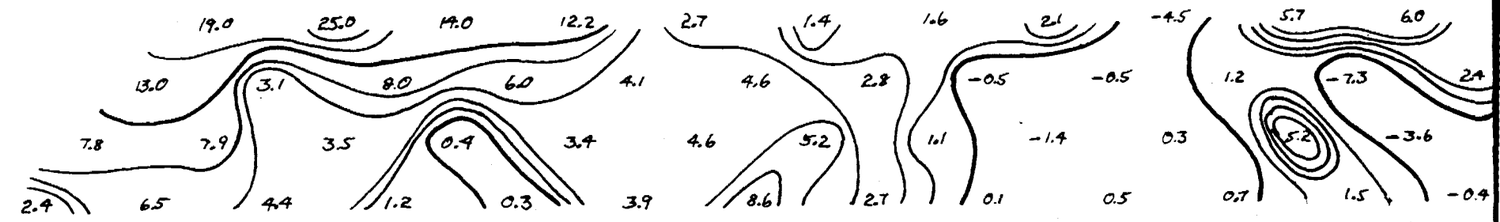
GEOPHYSICAL GROUND SURVEYS LTD.

15+505 15+255 15+003 14+755 14+505 14+255 14+003 13+755 13+505 13+255 13+003 12+755 12+505 12+255 12+003 11+75

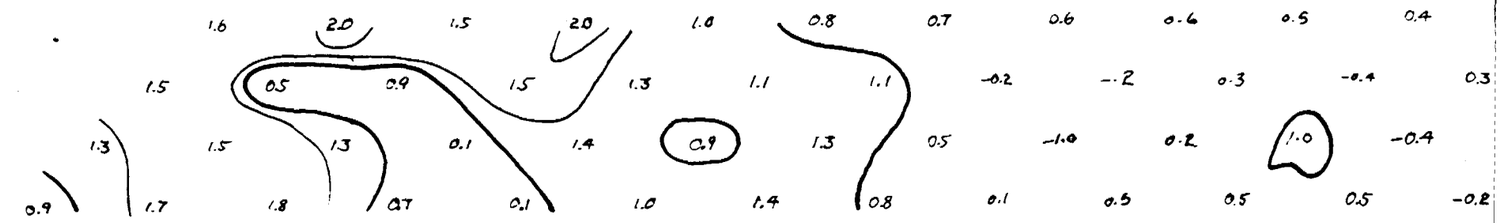
N-1 N-2 N-3 N-4

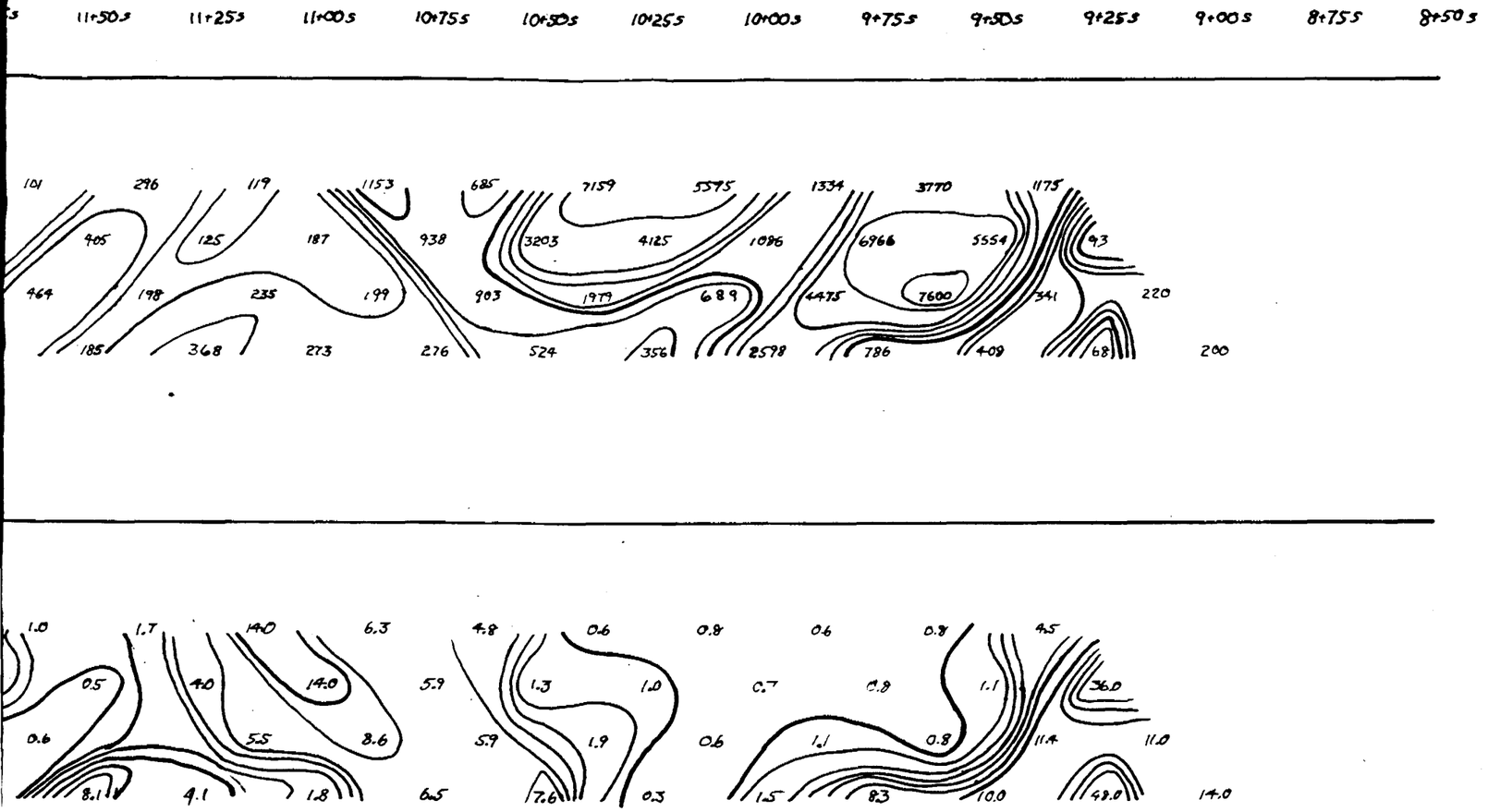


N-1 N-2 N-3 N-4



N-1 N-2 N-3 N-4





SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

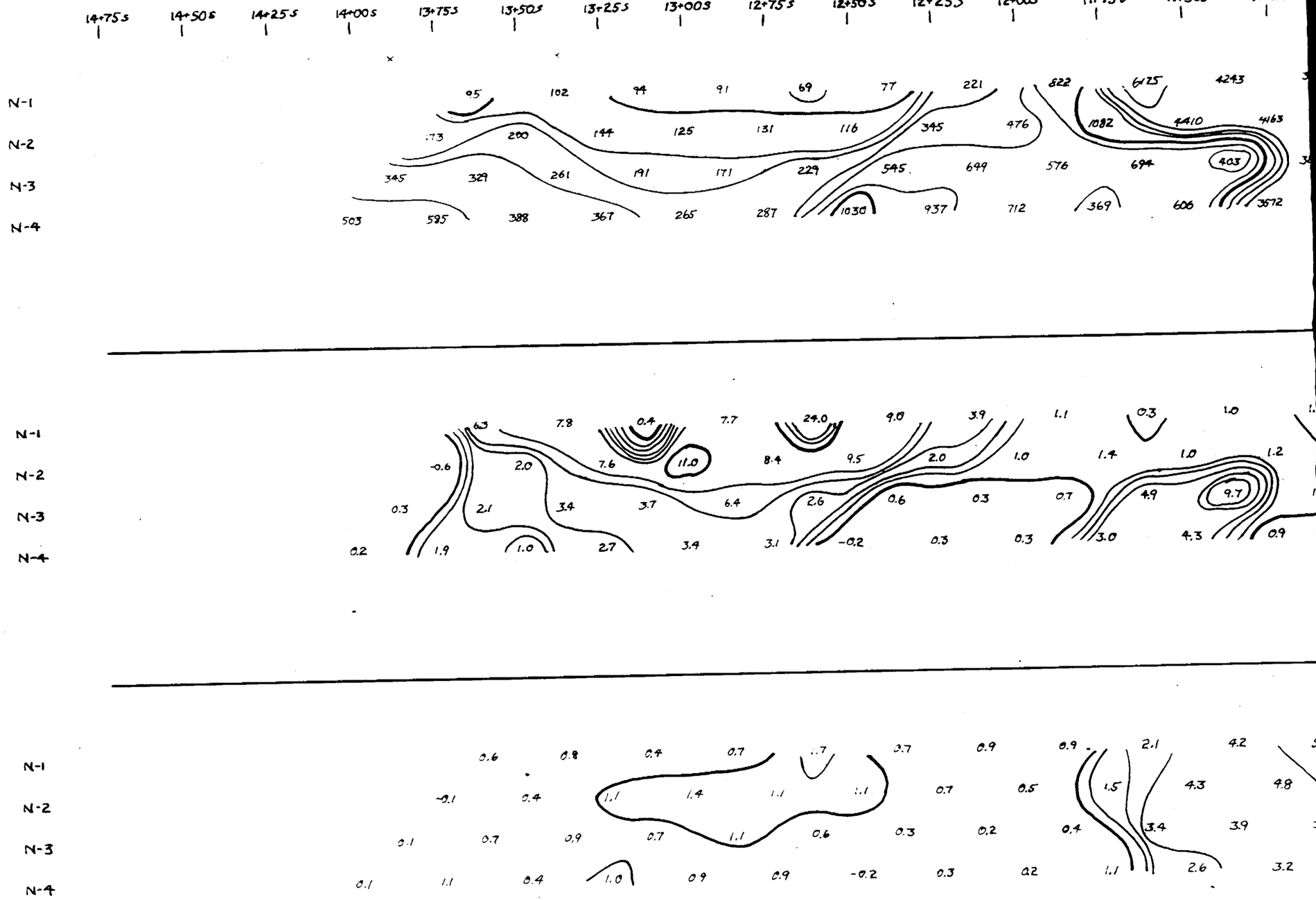
DATE:

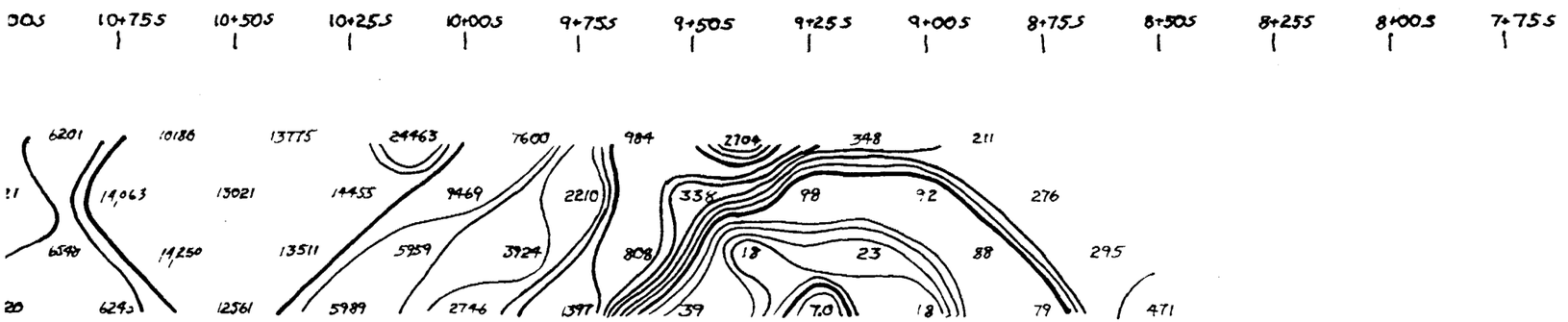
LINE: 16 W

MF

FE.

Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.


14+75S
14+50S
14+25S
14+00S
13+75S
13+50S
13+25S
13+00S
12+75S
12+50S
12+25S
12+00S
11+75S
11+50S
11+25S
N-1
N-2
N-3
N-4
95
102
94
91
69
77
221
822
6125
4243
173
200
144
125
131
116
345
476
1082
4410
4463
345
329
261
191
171
229
545
649
576
694
403
503
585
388
367
265
287
1030
937
712
369
606
3572
N-1
N-2
N-3
N-4
6.3
7.8
0.4
7.7
24.0
9.0
3.9
1.1
0.3
1.0
-0.6
2.0
7.6
11.0
8.4
9.5
2.0
1.0
1.4
1.0
1.2
0.3
2.1
3.4
3.7
6.4
2.6
0.6
0.3
0.7
4.9
9.7
0.2
1.9
1.0
2.7
3.4
3.1
-0.2
0.3
0.3
3.0
4.3
0.9
N-1
N-2
N-3
N-4
0.6
0.8
0.4
0.7
0.7
3.7
0.9
0.9
2.1
4.2
-0.1
0.4
1.1
1.4
1.1
1.1
0.7
0.5
1.5
4.3
4.8
0.1
0.7
0.9
0.7
1.1
0.6
0.3
0.2
0.4
3.4
3.9
0.1
1.1
0.4
1.0
0.9
0.9
-0.2
0.3
0.2
1.1
2.6
3.2



SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

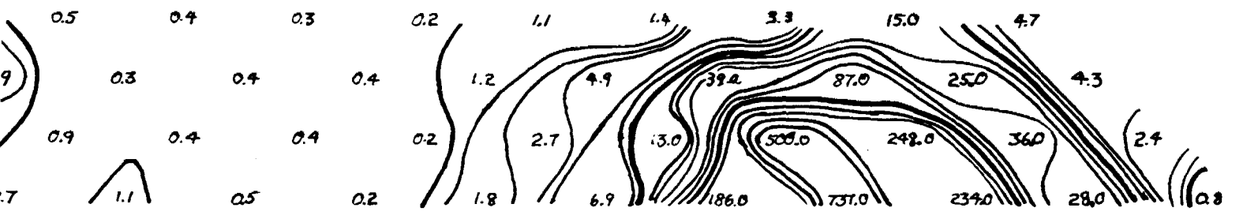
C.a

HPIP SURVEY (DIPOLE-DIPOLE)

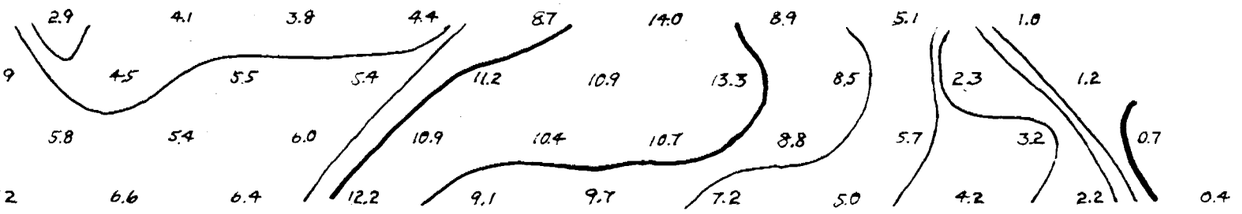
SCALE : 2·0 cm = 25·0m = Electrode Interval
FREQUENCIES : 0·3 & 5·0 Hz.
DATE:

LINE: 17 W

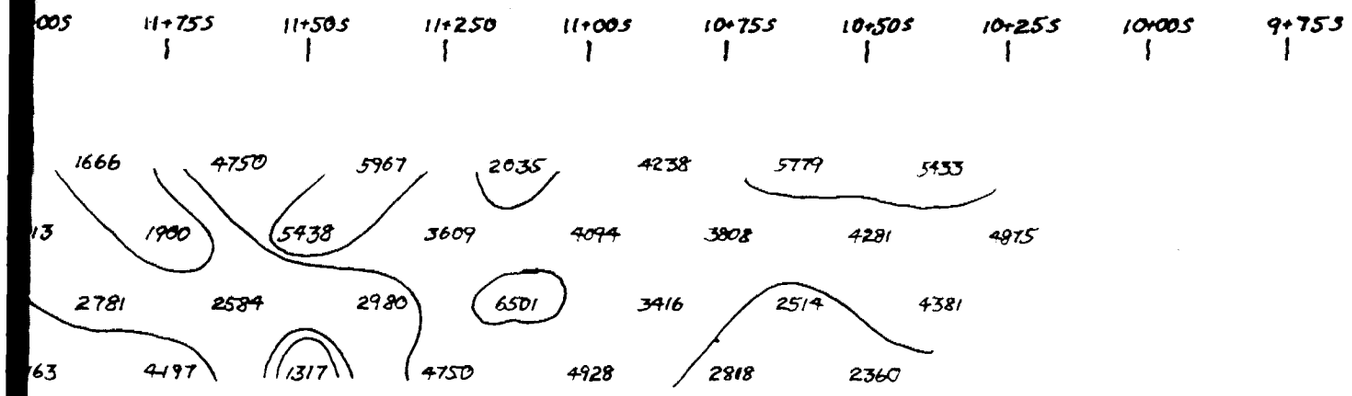
M.F.

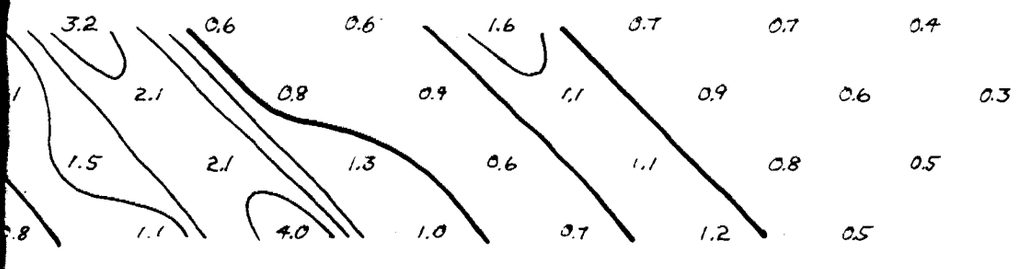


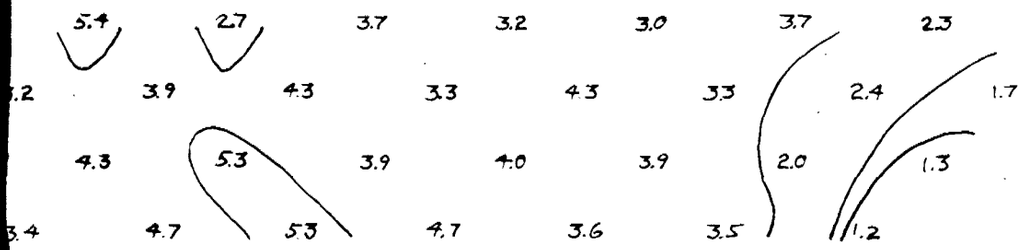
F.E.



Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.







SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

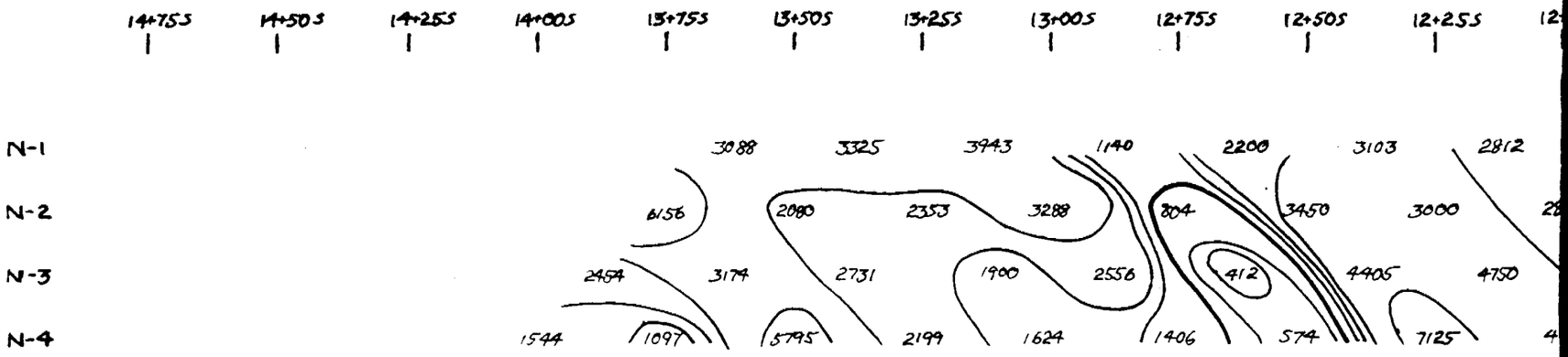
DATE:

LINE: 18 W

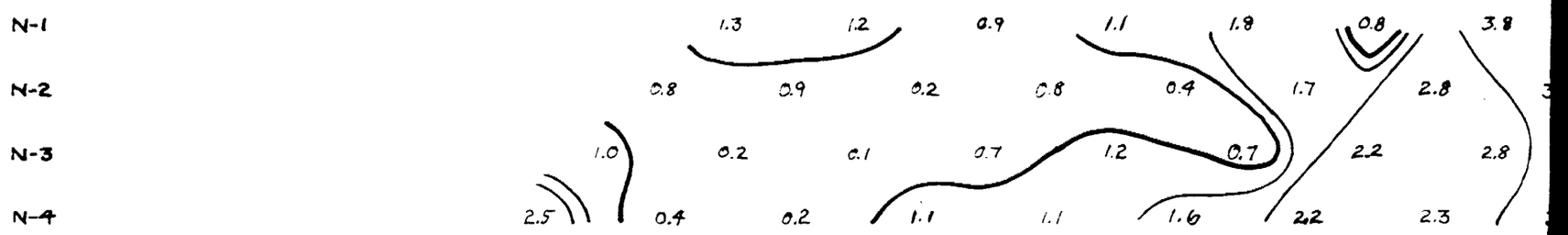
M.F.

F.E

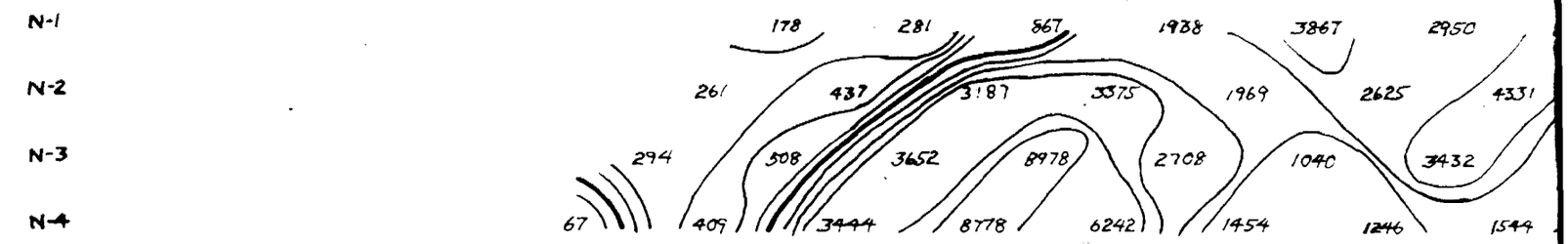
Mertens & MacNeil
GEOPHYSICAL GROUND SURVEYS LTD.

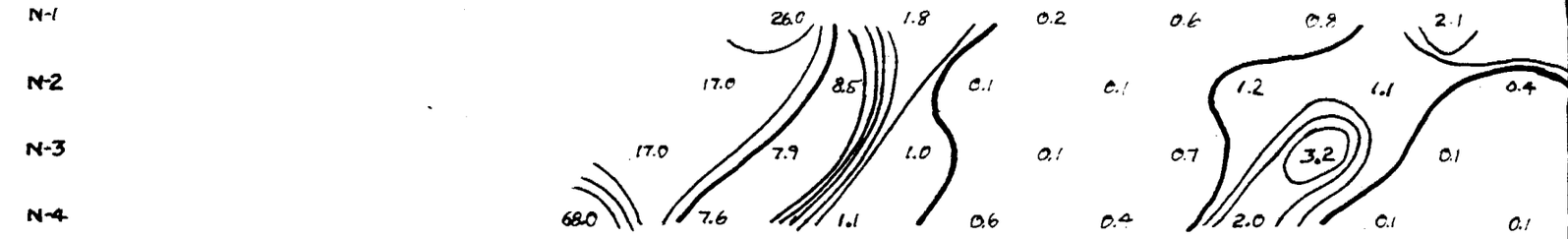

14+75S
14+50S
14+25S
14+00S
13+75S
13+50S
13+25S
13+00S
12+75S
12+50S
12+25S
N-1
N-2
N-3
N-4
3088
3325
3943
1140
2200
3103
2812
6156
2080
2353
3288
804
3450
3000
2454
3174
2731
1900
2556
412
4405
4750
1544
1097
5795
2199
1624
1406
574
7125

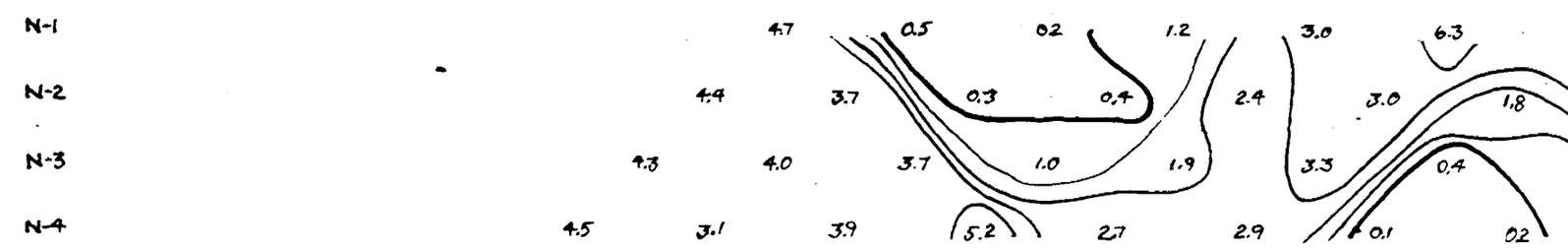
N-1
N-2
N-3
N-4
0.4
0.4
0.2
1.0
0.8
0.3
1.4
0.1
0.3
0.1
0.2
0.5
0.5
0.9
0.4
0.1
0.1
0.4
0.5
1.7
05
0.6
1.6
0.4
0.1
0.5
0.7
1.1
3.8
0.3


N-1
N-2
N-3
N-4
1.3
1.2
0.9
1.1
1.8
0.8
3.8
0.8
0.9
0.2
0.8
0.4
1.7
2.8
1.0
0.2
0.1
0.7
1.2
0.7
2.2
2.8
2.5
0.4
0.2
1.1
1.1
1.6
2.2
2.3

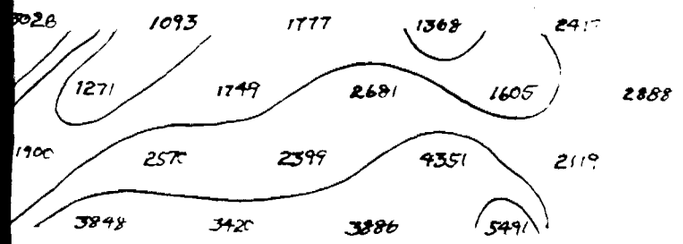
15+00S 14+75S 14+50S 14+25S 14+00S 13+75S 13+50S 13+25S 13+00S 12+75S 12+50S

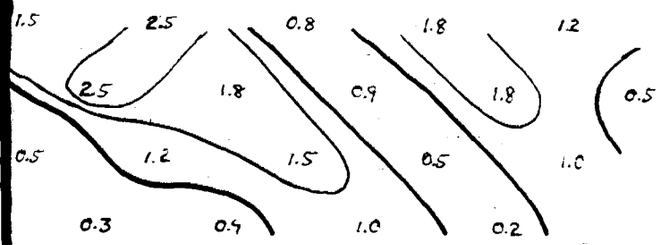


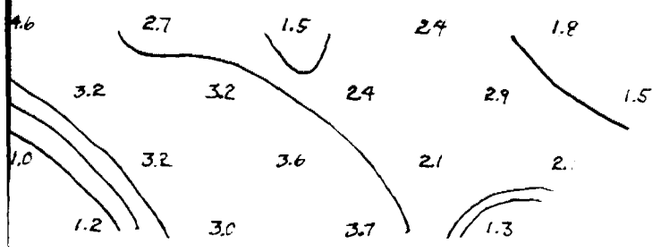




12+25S 12+00S 11+75S 11+50S 11+25S 11+00S 10+75 S







SPARTON RESOURCES INC

STRAW LAKE PROJECT

Co FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 19 W

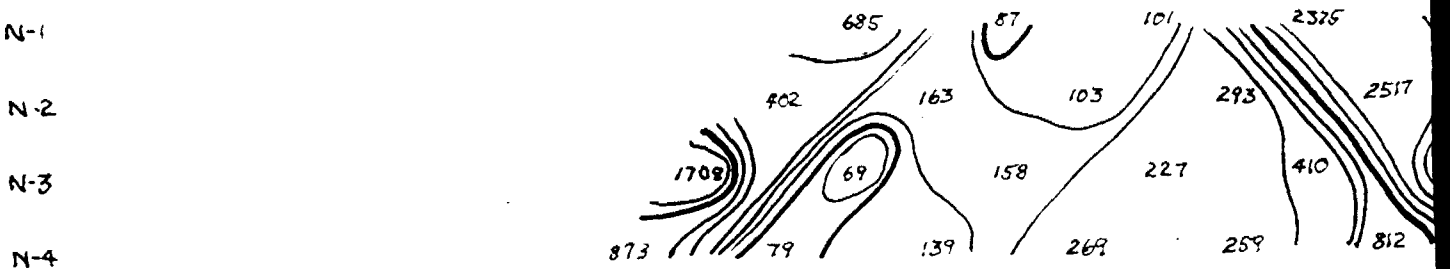
M.F.

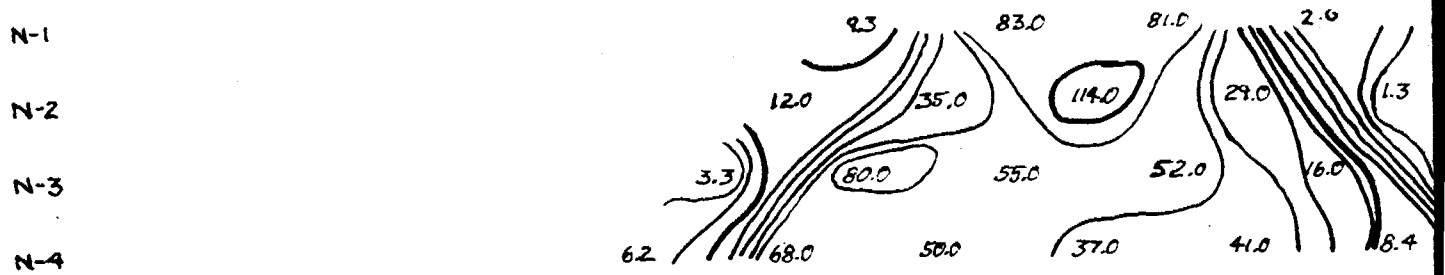
Mertens & MacNeil

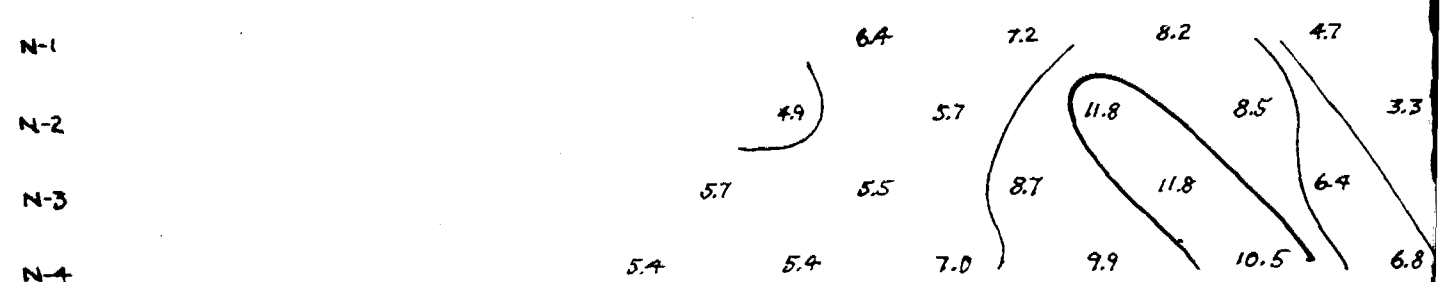
GEOPHYSICAL GROUND SURVEYS LTD.

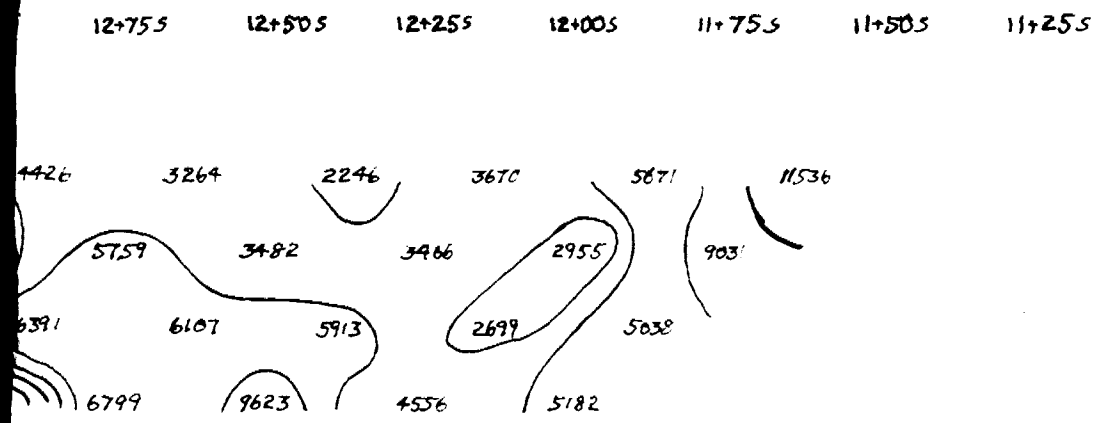
F.E.

16+00 S | 14+75 S | 14+50 S | 14+25 S | 14+00 S | 13+75 S | 13+50 S | 13+25 S | 13+00 S

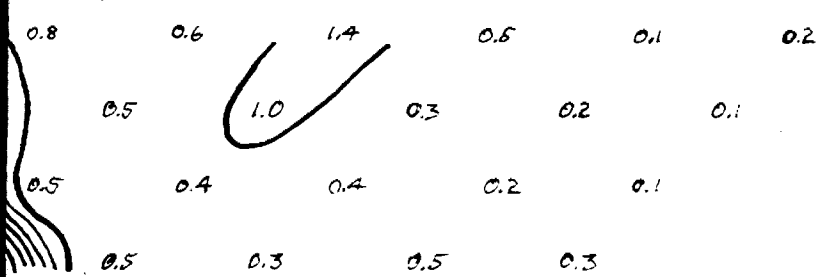




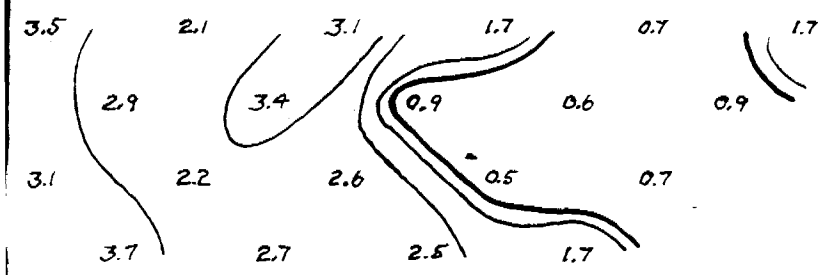




C.D.



M.F.



F.E.

SPARTON RESOURCES INC

STRAW LAKE PROJECT
FORT FRANCIS, ONTARIO.

HPIP SURVEY (DIPOLE-DIPOLE)

SCALE : 2·0 cm = 25·0m = Electrode Interval

FREQUENCIES : 0·3 & 5·0 Hz.

DATE:

LINE: 22 W

Mertens & MacNeil

GEOPHYSICAL GROUND SURVEYS LTD.

OM83-3-C-113

SPARTON RESOURCES INC.

STRAW LAKE PROJECT

1983 EXPLORATION PROGRAM

SUMMARY REPORT

APPENDIX K

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83-1

Hole No. SL - 83-1 Sheet 3
Property Straw Lake
Township
Location 4 + 00W 0 + 60m S

Length 253'
Bearing North
Dip -50°
Objective IP/VLF-EM Anomaly

Commenced Nov.30/1983
Completed Dec.02/1983
Drilling Co. Norwescon Drilling
Core Size BQ
Casing Left in Hole No

Dip: Collar -50°

Etch Test	Depth	Rdg.	True
No Dip Tests			

Location Sketch

North

Claim No.

Scale: 1" = 1000'

Remarks Logged by: Jim Gaunt
Core stored at Straw Lake camp

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length		Au oz/ton	Au ppb			
0	8	Overburden										
8	12	Intermediate volcanic rock - Foliated with 15% quartz in narrow bands parallel to the foliation - Carbonate - quartz bands occur at random through the section - Banding lies ≈45° to the core axis - Quartz rich section 9.5 - 11.5 with coarse crystalline pyrite and chlorite	10319	8.0	12.0	4.0'		Tr	252			
12	27.5	Intermediate volcanic rock - Very uniformly foliated - foliation 45° core axis - Quartz bands coplanar with foliation - Quartz-carbonate bands are coplanar & discordant with foliation and also lie along fractures. with > .5% pyrite (fine grained)										
27.5	29.5	Intermediate tuff - Uniform foliation - mostly fine grained but shows lapilli structure in some zones. - Fracture @ 28.0 with quartz and pyrite in fractures - Medium to fine grained pyrite throughout this section ≤ 1% though heavier @ 28.0 - Foliation ≈ 45° to core axis.	10320	26.0	29.5	3.5'		Tr	49			
29.5	33.5	Intermediate volanic rock - Fine grained - Rooular foliation ≈45°to core axis - Quartz - carbonate filled fractures.										
33.5	38.0	Intermediate volcanic rock - Irregular foliation and banding @≈45°/core axis - Quartz - carbonate filled fracture system carrying chlorite and up to 3-4% fine grained pyrite.	10321	33.0	38.0	5.0		Tr	130			

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83-1
Sheet No. 2

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length		Au oz/ton	Au ppb			
38.0	103.5	Intermediate to Mafic volcanic rock	10322	48.0	50.0	2.0		Tr	47			
		- Fine grained - uniformly foliated @ ≈ 45° to core axis	10323	58.0	61.0	3.0		Tr	37			
		- Occasional ± 1/4" fractures filled with carbonate, some	10324	65.0	67.0	2.0		Tr	20			
		concordant and some discordant with foliation	10325	80.0	83.0	3.0		Tr	34			
		- Quartz-carbonate pyrite fractures occur	10326	84.0	86.0	2.0		Tr	57			
		4" @ 49.5, 59.5-60.5, 65.5-67										
		- disseminated pyrite to 1% occurs at 81.5-82.0, 85-85.5										
103.5	137.5	Intermediate to felsic volcanic rock	10316	118	122	4		Tr	51			
		- Uniform foliation @ ≈ 45° to core axis	10317	130.5	135.0	4.5		Tr	80			
		- Quartz rich bands concordant with foliation	10318	135.0	137.5	2.5		Tr	48			
		- Carbonate rich concordant bands and discordant fracture										
		fillings occur throughout the interval										
		- Fine grained pyrite occurrs @ 107, 109, 110,										
		118-120, 122, 131.5-135, 136.5-137.5 in amounts generally less than 2%										
137.5	156.5	Felsic volcanic rock										
		- Uniform foliation ≈ 45° to core axis	10315	137.5	141	3.5		Tr	70			
		- Rock is quartz rich and fine grained	10308	147	153	6.0		Tr	58			
		- Pyrite mineralization 137.5 - 138.2 < 15%	10309	153	156.5	3.5		Tr	41			
		139-140 < 40%										
		141 (2") < 20%										
		142 (.5") < 60%										
		147-153 > 10%										
		154-156.5 < 15%										
156.5	163.8	Felsic volcanic rock (Lapilli tuff)	10310	156.5	158.5	2.0		Tr	53			
		- Weak foliation, quartz-eye development	10311	158.5	163	4.5		Tr	140			
		strong -	10312	163	163.8	0.8		Tr	538			
		- Coarse pyrite cubes in quartz-carbonate matrix; ± 15% pyrite throughout	10313	163.8	164.5	0.7		Tr	40			
		- Massive pyrite 163-163.8	10314	164.5	167.	2.5		Tr	28			
163.8	164.5	Felsic volcanic rock										
		- Fine grained quartz rich										
		- Well foliated with minor coarse grained pyrite along foliation planes.										
		Pyrite ± 1%										
164.5	166	Felsic volcanic rock (Lapilli tuff)										
		- as in 156.5-163.8										
		- Coarse grained pyrite ± 10%										

SPARTON RESOURCE INC.

DIAMOND DRILL RECORD

Hole No. SL - 83-1
Sheet No. 3

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length
166	199	Felsic volcanic rock - Irregular foliation 45° to core axis - Rock is 90% quartz with banding formed by sericite and chlorite at random over the interval - Medium grained pyrite crystals occur in narrow chloritic bands occasionally through this section but overall make up a very fractional percentage of the rock - In places quartz exhibits crushing and recementing to a minor degree - Chlorite-pyrite bands occur @ 166-169 < " .25" 172-174 < " .25" 180 < " .25" 185-188 < " .25" 190 < " .25" 193-198 < " .25"				
199	253	Felsic volcanic rock - Uniform banding ≈ 45% to core axis - Rock is 95% quartz with sericite - chlorite-pyrite in narrow bands up to .25" - Pyrite is generally coarse grained in these bands - Pyrite with chlorite occurs along a random fracture pattern in section 223-235 - Sericite content decreases with depth				
		END OF HOLE 253'				
		- Rock assays performed by Custom Fire Assay, Cochenour, Ontario				
		- Atomic Absorption performed on sample pulps by Assayers (Ontario) Ltd. Islington, Ontario				

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83-2

Hole No. SL-83-2 Sheet 2
Property Straw Lake
Township
Location L-12 + 00W 1 + 50m N

Length 333'
Bearing South (180°)
Dip -50°
Objective I/P Anomaly

Commenced December 4, 1983
Completed December 6, 1983
Drilling Co. Norwescon drilling
Core Size BQ
Casing Left in Hole Yes

Dip: Collar

Etch Test	Depth	Rdg.	True
No dip tests			

Location Sketch

North

Claim No.

Scale: 1" = 1000'

Remarks Logged by Jim Gaunt
Core stored at Straw Lake camp

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length		Au oz/ton	Au ppb		
0	3	Overburden									
3	12	Intermediate volcanic rock	10327	3.0	8.0	5.0'		Tr.	50		
		- Foliated @ ≈ 55° to core axis	10328	8.0	12.0	4.0'		Tr.	44		
		- Heavy sericite or talc alteration along the banding - carbonate filled fracture pattern superimposed on banding									
		- Up to 2% pyrite in fine grains throughout the interval -									
		- Broken core									
12	28.5	Intermediate volcanic rock	10329	12.0	17.0	5.0'		0.32	33		
		- Foliation ± 35% core axis	10330	17.0	22.0	5.0'		Tr.	58		
		- Sericite and minor talc on foliation planes	10331	22.0	28.5	6.5		Tr.	23		
		- Fine grained pyrite in stringers and disseminations to 1 % through section									
28.5	60.5	Intermediate volcanic rock and felsic tuffs (intercalated)	10332	28.5	33.0	4.5		Tr.	24		
		- Foliation ≈ 45° to core axis	10333	33.0	38.0	5.0		Tr.	20		
		- ≤ 2% pyrite in coarse grained crystal tuffs	10334	38.0	43.0	5.0		Tr.	27		
		- Carbonate filled fracture zones @ 34', 51'-53', 54' and 60'.	10335	43.0	48.0	5.0		Tr.	63		
			10336	48.0	53.0	5.0		Tr.	72		
			10337	53.0	58.0	5.0		Tr.	40		
			10338	58.0	60.5	2.5		Tr.	34		
60.5	117	Felsic tuff - weakly foliated ≈ 45° to core axis	10339	60.5	65.0	4.5		Tr.	48		
		- fine grained to coarse grained pyrite between 5-10%	10340	65.0	70.0	5.0		Tr.	46		
		- Sericite developed along banding	10341	70.0	75.0	5.0		Tr.	10		
		- Occasional , random chlorite bands and carbonate blebs	10342	75.0	80.0	5.0		Tr.	<5		
		- Random chlorite lenses throughout	10343	80.0	85.0	5.0		Tr.	120		
			10344	85.0	90.0	5.0		Tr.	23		
			10345	90.0	95.0	5.0		Tr.	7		

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83-2
Sheet No. 2

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length		Au oz/ton	Au ppb			
117	205	Felsic Tuff	10346	95.0	100.0	5'		Tr	10			
			10347	100.0	105.0	5'		Tr	50			
		- Very poorly developed foliation @ 35-55° to core axis	10348	105.0	110.0	5		0.02	848	—		
		- Numerous narrow quartz veins throughout this interval	10349	110.0	117.0	7		0.01	154	—		
		same sericite development (pervasive)	10350	117.0	122.0	5		Tr	13			
		- Pyrite 5-25% throughout the section and is grained & occurs at	10351	122.0	127.0	5		Tr	< 5			
		random w.r.t. foliation	10352	127.0	132.0	5		0.01	< 5	—		
		- Rock is 80% quartz on average	10353	132.0	137.0	5		Tr	< 5			
			10354	137.0	142.0	5		Tr	< 5			
205	247	Felsic to intermediate tuff	10355	142.0	147.0	5		Tr	< 5			
		- Moderately developed foliation 55° - 65° to the core axis	10356	147.0	152.0	5		Tr	< 5			
		- Quartz eyes occur throughout with occasional narrow quartz stringers with	10357	152.0	157.0	5		Tr	< 5			
		minor white carbonate.	10358	157.0	162.0	5		Tr	< 5			
		- Coarse to medium pyrite occurs to 10% between 205-214 and averages	10359	162.0	167.0	5		Tr	< 5			
		< .5 % from 214 to 247.	10360	167.0	172.0	5		Tr	30			
			10361	172.0	177.0	5		Tr	27			
247	311	Felsic tuff	10362	177.0	182.0	5		Tr	< 5			
		- Narrow bands of fine grained volcanic tuff alternate with bands of	10363	182.0	187.0	5		Tr	5			
		coarse grained felsic tuff (with quartz eyes) possibly a crushed zone	10364	187.0	192.0	5		Tr	86			
			10365	192.0	197.0	5		Tr	< 5			
		- Foliation is well developed @ ≈ 55° in the fine grained tuff and to a	10366	197.0	205.0	5		Tr	426	—		
		lesser degree in the coarse grained bands.	10367	205.0	210.0	8		Tr	75			
		- Fine to medium grained pyrite occurs through the section with sections up	10368	210.0	216.0	6		Tr	60			
		to 10% though averaging < 1%.	10369	244.0	247.0	3		Tr	5			
			10370	247.0	250.0	3		Tr	27			
311	333	Intermediate tuff	10371	262.0	266.0	4		Tr	30			
		- Foliation well developed 60° to core axis	10372	275.0	277.0	2		Tr	60			
		- Rock shows quartz in boudinaged blebs along banding.	10373	304.0	308.0	4		Tr	27			
		- Minor pyrite < .25% over the section	10374	309.0	311.0	2		Tr	68			
		END OF HOLE - 333'										
		- Rock assays performed by Custom Fire Assay, Cochenour, Ontario										
		- Atomic Absorption performed on sample pulps by Assayers (Ontario) Ltd. Islington, Ontario										

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83-3

Hole No. SL-83-3 Sheet 3
Property Straw Lake
Township
Location L-15W/1 + 54N

Length 293'
Bearing North
Dip 50°
Objective IP Anomaly/VLF-EM Anomaly

Commenced December 7, 1983
Completed December 10, 1983
Drilling Co. Norwescon Drilling
Core Size BO
Casing Left in Hole

Dip: Collar -50°

Etch Test	Depth	Rdg.	True
No tests			

Location Sketch

North

Claim No.

Scale: 1" = 1000'

Remarks
Logged by: Jim Gaunt
Core stored at Straw Lake camp

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length	Au oz/ton	Au ppb
0	7	Overburden						
7	13	Mafic volcanic rock	10375	7	13	6'	Tr	38
		- Weakly developed foliation @ 60° to core axis						
		- Dark green rock - Core is broken and shows surface weathering with hematite staining on joint planes						
		- Chlorite occurs throughout						
		- Fine grained pyrite < .5% over interval						
13	38	Intermediate volcanic rock (Lapilli tuff)						
		- Well developed foliation @ 40° to core axis						
		- Lapilli structures occur throughout the interval						
38	51.6	Felsic volcanic rock (tuff)	10376	42.5	45.5	3'	Tr	66
		- Well developed foliation @ 45° to core axis	10377	49.0	51.0	2'	Tr	52
		- Rock is light coloured - fine grained - quartz rich with minor sericite and chlorite development along the banding						
		- Fine grained pyrite occurs at random through the interval at < .25% with richer sections @ 42.5 - 45.5 > 1%						
		49.0 - 51 > 3%						
51.6	119.5	Felsic volcanic rock						
		- Well developed banding @ 45° to core axis	10378	69	72	3	Tr	86
		- Banding shows flow structures	10379	78.5	79.5	1	Tr	13
		- Rock is light coloured and fine grained - some quartz rich zones are chert like in composition						
		- Rock shows minor ser cite and chlorite development along flow planes						
		- Fine grained pyrite occurs @ 69 - 72 - 1%						
		78.5- 79.5 - 2%						

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83-3
Sheet No. 2

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length	Au oz/ton	Au ppb				
119.5	126.5	Felsic volcanic rock (tuff)										
		- Rock is light coloured and fine grained containing + 85% quartz	10380	119.5	123	3.5	0.02	170	✓			
			10381	123	126.5	3.5	Tr	41				
		- Fine grained pyrite throughout to ± 5%										
126.5	132.5	Felsic volcanic rock (as in 51.6 to 119.5)										
129	132.5	Felsic volcanic rock (tuff) (as in 119.5 to 126.5)	10382	129	132.5	3.5	Tr	53				
132.5	165	Intermediate volcanic rock										
		- Well developed foliation @ 45° to core axis	10384	132.5	135	2.5	Tr	24				
		- Heavy fracture zone with quartz filling from 154 to 157	10383	157	162	5'	Tr	65				
			10385	162	165	3'	Tr	71				
		- Fine to medium grained pyrite occurs @ ~153, 155.5, 159, 160 161										
165	170	Felsic volcanic rock	10386	165	170	5'	0.01	52	✓			
		- Fine grained quartz rich rock - foliation weakly developed @ + 55° to core axis										
		- Pyrite to + 2% occurs through the interval										
		- Quartz filled fracture zones occur @ 165-166, 168-170, fracture pattern is irregular.										
170	176	Intermediate volcanic rock										
		- Quartz filled fractures throughout the interval	10387	170	176	6'	Tr	29				
176	193	Felsic volcanic rock	10388	185	187	2'	Tr	55				
		- Weakly developed banding 65° to core axis										
		- Quartz filled fractures at random through the interval										
		- Fine grained pyrite to 2% @ 185 to 186.5										
193	246.5	Intermediate volcanic rock	10389	215	221	6'	Tr	33				
		- Weakly developed banding @ 55° to core axis										
		- Quartz filled fracture zones occur at random through the interval										
		- Narrow pyrite rich zones, parralel banding with > 3% pyrite occur @ 215, 216, 219.5, 221										

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83.3
Sheet No. 3

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length	Au Oz/ton	Au ppb
246.5	25.7	Felsic volcanic rock (tuff)	10390	246.5	251	4.5	Tr	17
		- Weakly developed banding @ 60° to core axis	10391	2.51	257	6'	Tr	20
		- Rock is light coloured and quartz rich						
		- Sericite & chlorite are developed along the banding						
		- Coarse grained pyrite up to 15% through the interval						
257	293	Intermediate volcanic rock						
		- Weakly developed banding + 60° to core axis						
		- Some lapilli structures exhibited - quartz eyes show in random locales						
		- Occasional quartz filled fractures						
		- Minor sericite and chlorite developed on banding planes						
		- Fine grained pyrite occurs in narrow bands of >.5%						
		- END OF HOLE 293'						
		- Casing left in the hole						
		- Rock Assays (see SL-1-83)						
		- Atomic Abs. (see SL-1-83)						

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83-4

Hole No. SL-83-4 Sheet 2
Property Straw Lake
Township
Location L-13 + 50W/1 + 50N

Length 313'
Bearing North
Dip 50°
Objective IP Anomaly

Commenced December 1983
Completed December 1983
Drilling Co. Norwescon Drilling
Core Size BQ
Casing Left in Hole No

Dip: Collar -50°

Etch Test	Depth	Rdg.	True
No tests			

Location Sketch

North

Claim No.

Scale: 1" = 1000'

Remarks Drilled by: Mr. Duggan
Logged by: Jim Gaunt
Core stored at Straw Lake

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length	Au oz/ton	Au ppb
0	8	Overburden						
8	18	Intermediate volcanic rock	10701	8	13	5	0.01	357
		- Weakly banded @ 45° to the core axis	10702	13	18	5	Tr.	86
		- Rock is fractured and weathered to 13'						
		- Quartz - carbonate veins @ 11' - 2"						
		12' - 2"						
		16.5' - 1"						
		- Fine and medium grained disseminated pyrite occurs through the interval						
18	52.5	Felsic volcanic rock	10703	18	23	5	Tr.	140
		- Vaguely banded @ 45° - 60° to the core axis	10704	23	28	5	Tr.	26
		- Rock is fractured/crushed and shows heavy sericite developemnt along	10705	28	33	5	Tr.	13
		the fracture planes	10706	33	38	5	Tr.	16
		- Quartz veins occur @ 21' - 2"	10707	38	43	5	Tr.	150
		22' - 2"	10708	43	48	5	Tr.	N.S.
		- Quartz eyes and blebs occur at random through the interval	10709	48	52.5	4.5	Tr.	20
		- Fine & coarse grained pyrite occurs up to 15% through the section						
52.5	124	Intermediate volcanic rock	10710	53	55	2	Tr.	17
		- Well developed banding @ 45°-55° to the core axis	10711	61.5	62.5	1	Tr.	12
		- Rock is green/grey in colour and shows occasional lapilli forms and	10712	66	68.5	2.5	Tr.	10
		minor quartz eye development	10713	84	86	2	Tr.	13
		- Quartz carbonate filled fractures occur @ 67-68, 69.5, 72, 73,	10714	102	107	5	Tr.	6
		78, 82-83, 95, 96.	10715	107	113	6	Tr.	< 5
		- Pyrite occurs in fine grained bands and disseminations through	10716	113	118	5	Tr.	6
		the interval - up to 2%	10717	118	124	6	Tr.	12

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83-4
Sheet No. 2

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length		Au oz/ton	Au ppb			
124	159	Intermediate volcanic rock (Lapilli tuff)	10718	132	134	2		Tr.	6			
		- Weakly banded @ 45° to 50° to the core axis	10719	138	143	5		Tr.	8			
		- Lapilli structures are strong through the section	10720	143	148	5		Tr.	13			
		- Fine grained pyrite concentrations, occurs from 138 to 152	10721	148	152	2		Tr.	16			
159	179	Felsic volcanic rock (tuff)	10722	159	164	5		Tr.	20			
		- Vaguely banded @ 60° to core axis	10723	164	169	5		Tr.	21			
		- Medium grained, grey coloured rock	10724	169	174	5		Tr.	< 5			
		- Coarse to medium grained disseminated pyrite through the section to 5%	10725	174	179	5		Tr.	23			
179	194	Intermediate volcanic rock (tuff)										
		- Strongly banded @ 45-55° to the core axis										
		- Narrow bands of fine grained felsic tuff occurs from 87 to 90 feet										
		- Random quartz filled fractures occur throughout the section										
		- Quartz veins occur @ 185, 192-192.5										
194	232	Intermediate volcanic rock (lapilli tuff)	10726	197	199.5	2.5		Tr.	60			
		- Well developed banding @ 50°-60° to the core axis	10727	210	213	3		Tr.	20			
		- Lapilli structures are exhibited throughout	10728	216.5	217.5	1		Tr.	23			
		- Quartz eyes are strongly developed between 194-207 and 219-220	10729	228	229	1		Tr.	6			
		- Chlorite is developed along the banding planes through the interval										
		- To 1% disseminated pyrite throughout and concentrations in narrow bands to 30% occur through 198 to 210 and @ 228'										
232	313	Intermediate volcanic rock (tuff)	10730	233.5	238.5	5		Tr.	13			
		- Well developed banding @ 60° to the core axis	10731	241.5	246	4.5		Tr.	17			
		- Sericite and chlorite are developed on the banding planes	10732	246	251.5	5.5		Tr.	17			
			10733	251.5	256	4.5		Tr.	15			
		- 2-3% disseminated pyrite throughout and concentrations in	10734	256	261	5		Tr.	23			
		- concentrated zones to 10% occur in .25-2.0" bands	10735	261	266	5		Tr.	< 5			
			10736	266	271	5		Tr.	< 5			
			10737	271	276	5		Tr.	56			
			10738	276	281	5		Tr.	23			
		END OF HOLE 313	10739	281	286	5		Tr.	50			
			10740	286	291	5		Tr.	20			
			10741	291	296	5		Tr.	27			
		Casing left in hole.	10742	296	301	5		Tr.	322	●		
		Assay see SL-83-1	10743	301	306	5		Tr.	157	●		
		Atomic see SL-83-1	10744	306	311	5		Tr.	33			

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83-5

Hole No. SL-83-5 Sheet 3
Property Straw Lake
Township
Location L-12W/1 + 88N

Length 401'
Bearing South
Dip 50°
Objective Test down dip extension of values obtained in SL-2-83

Commenced December 15, 1983
Completed December 18, 1983
Drilling Co. Norwescon Drilling
Core Size BQ
Casing Left in Hole Yes

Dip: Collar -50°

Etch Test	Depth	Rdg.	True
	200'	30°	

Location Sketch

North

Claim No.

Scale: 1" = 1000'

Remarks Drilled by Mr. Duggan
Logged by Jim Gaunt
Core stored at Straw Lake camp

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length		Au oz/ton	Au ppb		
0	3	Casing - Overburden	10392	6.5	8.5	2		Tr.	41		
			10393	9	14	5		Tr.	20		
3	38	Mafic - Intermediate volcanic rock	10394	18.6	23	4.4		Tr.	24		
		- Foliated - Banding @ 40° to core axis	10395	23	28	5		Tr.	41		
		- Quartz eyes developed @ 3-7, 26-27'	10396	28	32	4		Tr.	29		
		- Quartz filled fracture zones @ 6.5-7, 8-8.5	10397	36	38	2		Tr.	44		
		9-11, 13.5-14.									
		- Quartz vein 1" @ 37.5'									
		- Rock is dark green to grey coloured and shows minor surface weathering									
		- Zone of medium grained pyrite to 5% occurs over 18.6-32									
38	93	Intermediate volcanic - Lapilli tuff	10398	38	43	5		Tr.	76		
		- Banded @ 40° to the core axis	10399	60	65	5		Tr.	27		
		- Rock is a mottled green grey colour with white	10400	65	70	5		Tr.	10		
		grey lapilli structures - lapilli development increases	10745	70	75	5		Tr.	6		
		with depth	10746	75	80	5		Tr.	23		
		- Sericite is developed in minor amounts along	10747	80	85	5		Tr.	21		
		the banding	10748	85	90	5		Tr.	23		
		- Zones of fine grained pyrite up to	10749	90	93	3		Tr.	< 5		
		2% occur at random through the interval									
93	154	Intermediate volcanic rock - flow breccia	10750	96	97	1		Tr.	< 6		
		- Banding vaguely developed @ 40% to core axis	10751	100	104.5	4.5		Tr.	10		
		- Quartz lenses surrounded by sericite are	10752	115.5	116.5	1		Tr.	10		
		developed through the section	10753	133	134	1		Tr.	140	✓	
		- Minor amounts of chlorite are developed	10754	138	140	2		Tr.	< 5		
		along the banding planes									

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83-5
Sheet No. 2

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length		Au oz/ton	Au ppb			
		- Pyrite zones are developed @ 96.5' - 1-20%										
		100-102.5 - 2-3%										
		103.5-104.5 - 5%										
		115.5-116.5 - 5%										
		133-133.5 - 2%										
		138-140 - 2%										
154	234.	Intermediate volcanic rock (fine grained tuff)	10755	154	159	5		Tr	< 5			
		- Banding - poorly developed @ 45° to core axis	10756	159	164	5		Tr	< 5			
		- Rock is grey green coloured with sericite	10757	164	169	5		Tr	9			
		and chlorite developed on the banding	10758	169	174	5		Tr	< 5			
		planes	10759	174	179	5		Tr	< 5			
		- Occasional quartz filled fractures occur	10760	179	182	3		Tr	< 5			
		subparallel to the banding	10761	206	212	6		Tr	< 5			
		- Medium to fine grained pyrite zones occur	10762	218	218.5	0.5		Tr	50			
		@ 154-182 - 2-3%	10763	220	225	5		Tr	31			
		206-212 - 2-3%	10764	229	234	5		Tr	10			
		218-218.5 - 2-3%										
		220-225 - 2-3%										
		229-234 - 2-3%										
234	302	Felsic volcanic rock (tuff)	20765	234	239	5		Tr	13			
		- Banded vaguely @ 50° to core axis	10766	239	244	5		Tr	30			
		- Rock is light grey coloured, fine grained and	10767	244	249	5		Tr	< 5			
		quartz rich	10768	249	254	5		Tr	13			
		- Zones of fine to medium grained	10769	254	259	5		Tr	15			
		pyrite up to 3-4% occur throughout this interval	10770	259	264	5		Tr	10			
			10771	264	269	5		Tr	7			
			10772	269	274	5		Tr	26			
			10773	274	379	5		0.01	804	✓		
			10774	279	284	5		Tr	26			
			10775	284	289	5		Tr	33			
			10776	289	294	5		Tr	38			
			10777	294	299	5		Tr	48			
			10778	299	302	3		Tr	20			
302	354	Felsic to intermediate volcanic rock (tuff)	10779	302	307	5		Tr	13			
		- Inter banded felsic and intermediate	10780	307	312	5		Tr	20			
		lapilli flows - banding @ 45° to core axis	10781	312	316	4		Tr	17			

SPARTON RESOURCES INC.

DIAMOND DRILL RECORD

Hole No. SL-83-5
Sheet No. 3

Footage From	Footage To	DESCRIPTION	Sample No.	From	To	Length		Au oz/ton	Au ppb			
		- Felsic tuffs are grey coloured - quartz rich	10782	316	321	5		Tr.	31			
		and carry 2-5% pyrite	10783	321	326	5		Tr.	20			
		- Lapilli tuffs are dark grey coloured	10784	326	331	5		Tr.	17			
		and generally do not carry much pyrite	10785	331	336	5		Tr.	10			
			10786	336	341	5		Tr.	13			
			10787	341	346	5		0.02	5	✓		
			10788	346	350	4		0.01	7	✓		
			10789	350	354	4		Tr.	12			
354	401	Intermediate volcanic rock (tuff)	10790	354	359	5		0.01	145	✓		
		- Banding vaguely displayed - flow breccia	10791	359	364	5		Tr.	57			
		structure is exhibited with lenticular	10792	364	369	5		Tr.	5			
		quartz inclusions in random locations	10793	369	374	5		Tr.	5			
		- Quartz filled fracture with pyrite	10794	374	379	5		Tr.	5			
		Occurs @ 391.5 - 392	10795	379	384	5		Tr.	5			
		- Up to 2% fine grained pyrite	10796	384	389	5		Tr.	5			
		occurs from 354 to 394.	10797	389	394	5		Tr.	5			
		END OF HOLE: 401										
		Casing left in hole										
		Dip test @ 200' - 30° (Uncorrected)										

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
SUMMARY REPORT
1983 EXPLORATION PROGRAM

TABLE OF CONTENTS

LIST OF APPENDICIES

SPARTON RESOURCES INC.

STRAW LAKE PROJECT

SECTION 1

INTRODUCTION

1983 EXPLORATION PROGRAM

This report is presented to fullfill the requirements of The Ontario Mineral Exploration Program Act,1980 in Application for Grant or Certificate of Entitlement to Tax Credit for Designated Program OM83-3-C-113.

Application is made in the name of:

SPARTON RESOURCES INC.
520-67 RICHMOND STREET WEST
TORONTO,ONTARIO

LOCATION and ACCESS

The Straw Lake property is located in Northwest Ontario on N.T.S. 52 F/3. Straw Lake which is central to the property is approximately 65km due North of the Town of Fort Francis and 81km southwest of the Town of Dryden.

The property is accessable year round by car/truck either south from Hiway 17 at Dryden or north from Hiway 11 via Hiway 805 to Cedar Narrows Road. Cedar Narrows Road is a well maintained gravel road which transects the Straw Lake property.The northeast arm of Straw Lake,and the base camp are at km 42 of Cedar Narrows Road

PROPERTY

The Straw Lake claim group consists of 239 unpatented mining claims as follows:

K638827 - K638846	inclusive	20
K677701 - K677758	inclusive	58
K677776 - K677828	inclusive	53
K677850 - K677894	inclusive	45
K677910 - K677913	inclusive	4
K677925 - K677983	inclusive	59

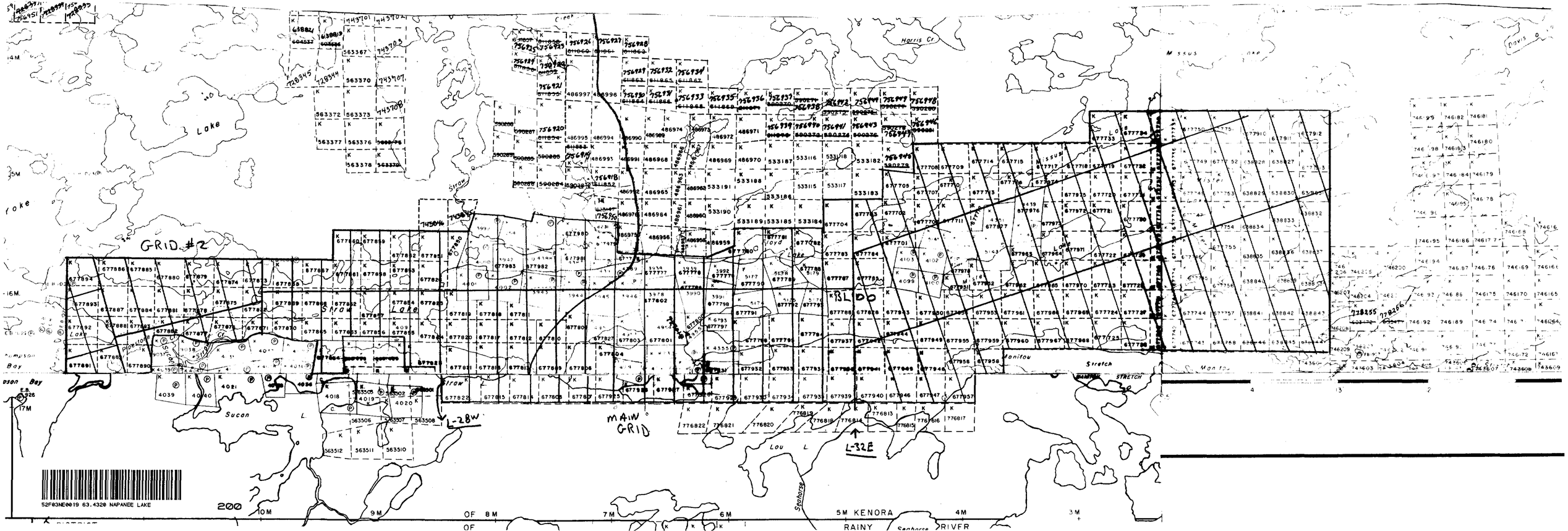
All claims are recorded in the Kenora Mining Division on plans M-2469, M-2471,and M-2430.

GRID-LINECUTTING

An exploration grid has been established on all land and water claims. Line spacing is 100m with stations established at 25m intervals.The baseline trends east-west on grid sheets 1,2 and 3 and on the East Grid,and 070 on the West Grid and grid sheets 4,5 and 6.Cross lines are always perpendicular to the baselines.

SUMMARY OF EXPLORATION

This report details the results of a major exploration program undertaken by Sparton Resources Inc.Surveys include complete coverage of all claims with


GRID #2
MAIN GRID
L-28W
L-32E
BLDG
Straw Lake
Sucan L.
Lou L.
Harris Cr.
Davis D.
Manitou Stretch
Seahorse
52F03NE0019 63.4320 NAPANEE LAKE
200
10M
9M
8M
7M
6M
5M KENORA
RAINY
4M
3M
OF

Harris Lake

L.

Missus

Floyd L.

Lake

Mister

Lake

Manitou Stretch

Lou Lake

N

LEGEND

MISTER LAKE PROSPECTING
CONTRACT 1983

- x — Rock sample location
- ⊗ — Float
- ····· T-9 — Traverse route, number
- – – – — Claim boundary

N.T.S. 41	COMPILED BY: Jeff Scouten, David Scouten, Stephen Johnston, Richard Nixon
DATE: June / July 1983	SCALE: 1" = ¼ mile

#63.4320

15 N

10 N

SEE WEST GRID

5 N

0 B.L.

5 S

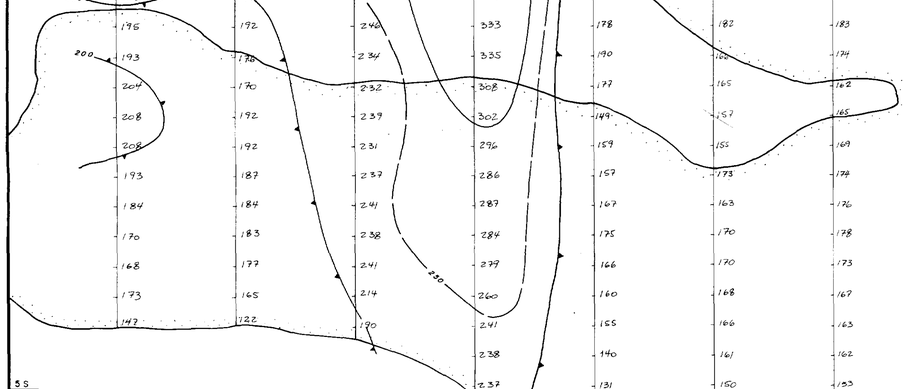
Straw

Lake

L-52W L-51W L-50W L-49W L-48W L-47W L-46W L-45W L-44W L-43W L-42W L-41W L-40W L-39W L-38W L-37W L-36W L-35W L-34W L-33W L-32W

52F03NE0019 63.4320 NAPANEE LAKE

220



LEGEND

- 793 Magnetic values in gammas
- Datum 59,000 gammas
- 1000 gamma contours
- 100 gamma contours
- Mag low

Contour interval – 100 gammas to 1000, 500 gammas to 5000

Instrument - Scintrex MP-2 Proton mag.

L-28 W L-27 W L-26 W L-25 W L-24 W L-23 W L-22 W L-21 W L-20 W L-19 W L-18 W L-17 W L-16 W L-15 W L-14 W L-13 W L-12 W L-11 W L-10 W

10 N

5 N

0

5 S

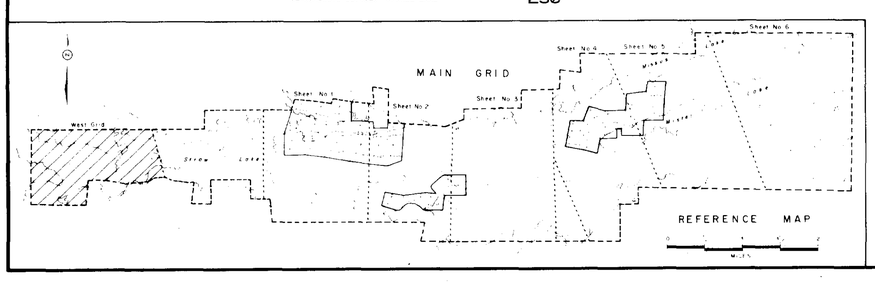
T.L.-8 N

B.L. (075°)

(Pipestone Lake)

Thompson Bay

Yoke Lake



L-26W L-24W L-22W L-20W L-18W L-16W L-14W L-12W L-10W

10 N

5 N

0

5 S

10 S

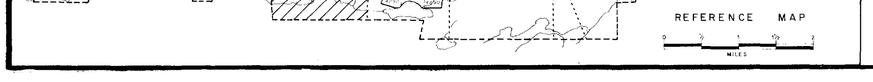
L-26 E L-24 E L-22 E L-20 E L-18 E L-16 E L-14 E L-12 E L-10 E L-8 E L-6 E L-4 E L-2 E

SEE MAP 2

Straw Lake

Straw Lake

L-26W L-25W L-24W L-23W L-22W L-21W L-20W L-19W L-18W L-17W L-16W L-15W L-14W L-13W L-12W L-11W L-10W L-9W



LEGEND

793 Magnetic values in gammas
Datum 59,000 gammas
1000 gamma contours
100 gamma contours
Mag low
Contour interval - 100 gammas to 1000, 500 gammas to 5000
Instrument - Scintrex MP-2 Proton mag

#63-4320

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
MAIN GRID, SHEET NO. 1

MAGNETOMETER SURVEY

SCALE: 1:2500 | N.T.S. | DATE: DEC., 1983

240

L-8W L-6W L-4W L-2W L-0 L-2E L-4E L-6E L-8E L-10E

Straw Lake

Camp

Floyd Creek

Rick Lake

Centre Lake

Vizor Lake

Road

5N

0

5S

10S

B.L. Az 090°

SEE MAP 1

SEE MAP 3

L-8W L-7W L-6W L-5W L-4W L-3W L-2W L-1W L-0 L-1E L-2E L-3E L-4E L-5E L-6E L-7E L-8E L-9E L-10E

250

MAIN GRID

REFERENCE MAP

LEGEND

793 Magnetic values in gammas
Datum 59,000 gammas
1000 gamma contours
100 gamma contours
Mag low
Contour interval – 100 gammas to 1000, 500 gammas to 5000
Instrument – Scintrex MP-2 Proton mag.

#63.4320

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
MAIN GRID, SHEET NO. 2

MAGNETOMETER SURVEY

SCALE: 1:2500 | N.T.S. | DATE: DEC., 1983

L-12E L-14E L-16E L-18E L-20E L-22E L-24E L-26E L-28E L-30E

10N

5N

0

5S

10S

Floyd Lake

Rick Lake

Paled Lake

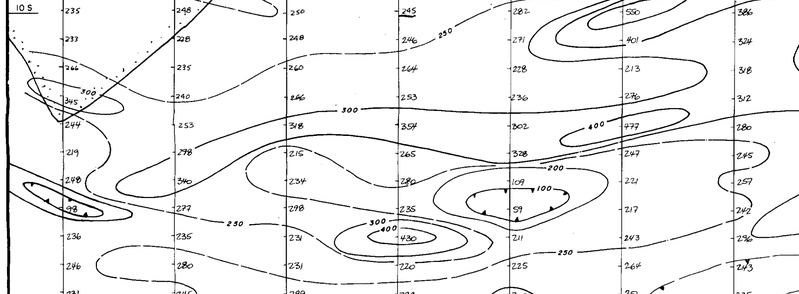
Low Lake

B.L.

SEE MAP 2

SEE MAP 4

L-11E L-12E L-13E L-14E L-15E L-16E L-17E L-18E L-19E L-20E L-21E L-22E L-23E L-24E L-25E L-26E L-27E L-28E L-29E L-30E L-31E L-32E



LEGEND

798 Magnetic values in gammas
Datum 59,000 gammas
1000 gamma contours
100 gamma contours
Mag low
Contour interval – 100 gammas to 1000, 500 gammas to 5000
Instrument - Scintrex MP-2 Proton mag.

#63.4320

SPARTON RESOURCES INC.

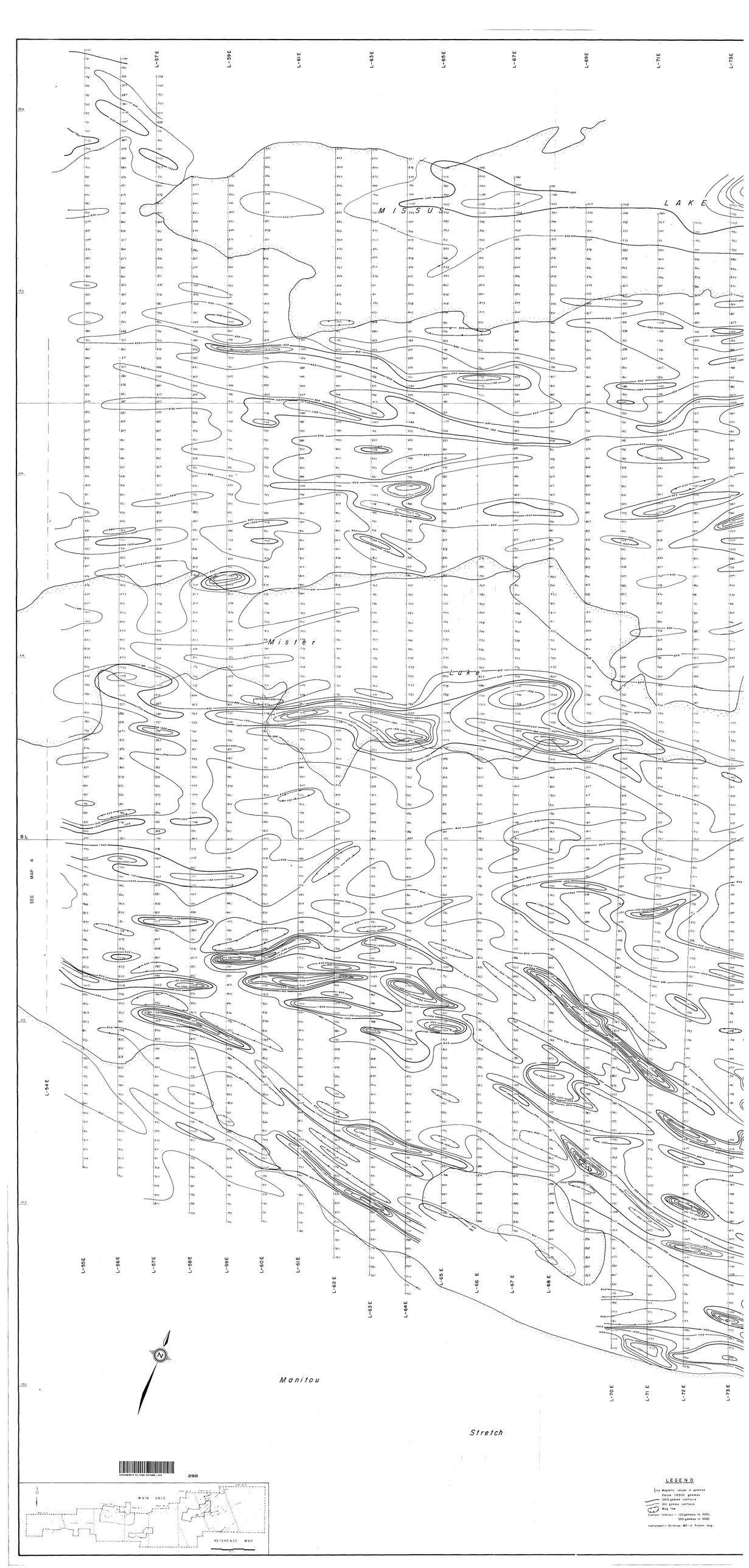
STRAW LAKE PROJECT
MAIN GRID, SHEET NO. 3

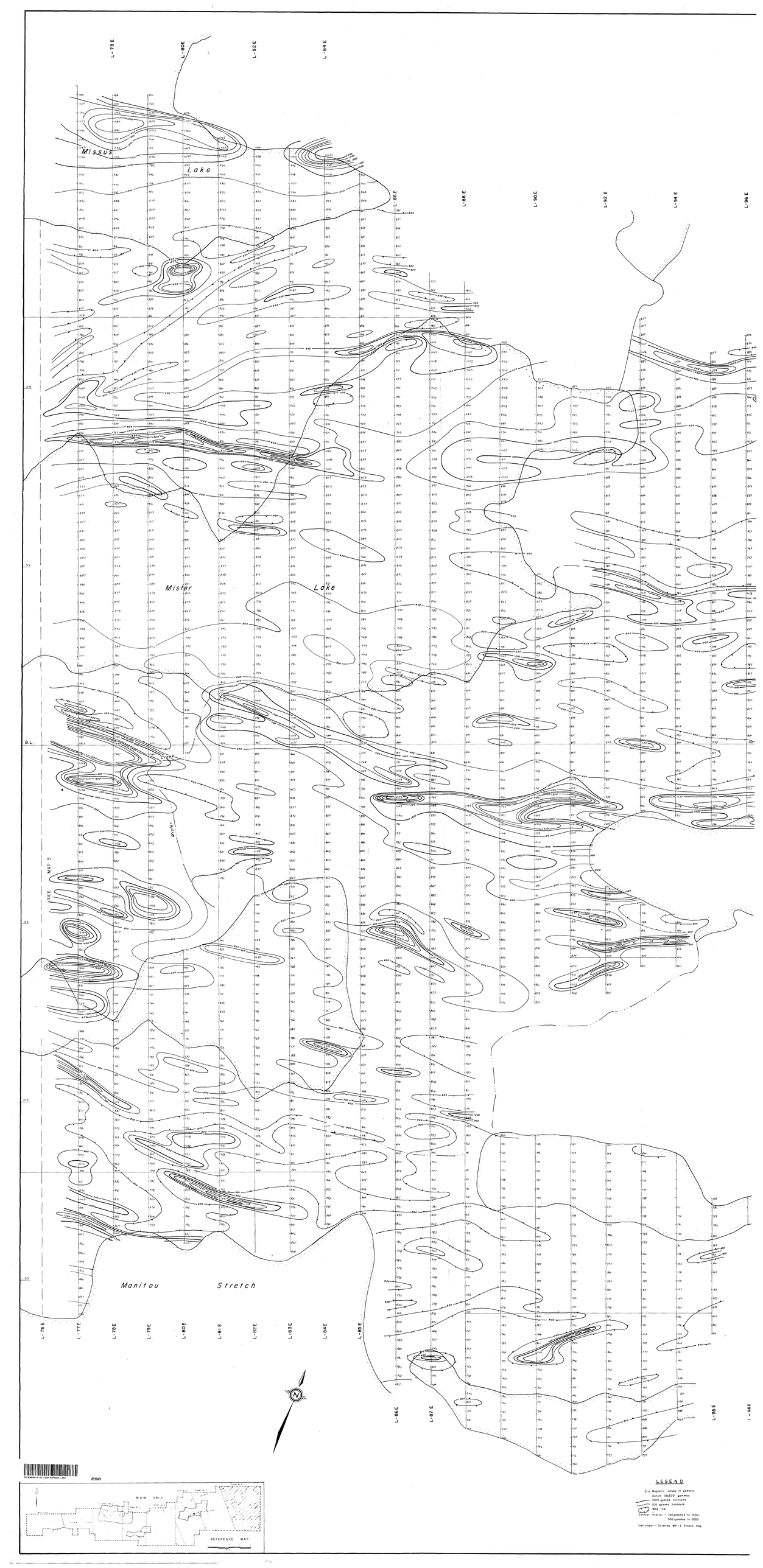
MAGNETOMETER SURVEY

SCALE: 1:2500 | N.T.S.: 52F/3 | DATE: DEC., 1983

L-38E
L-40E
L-42E
L-44E
L-46E
L-48E
L-50E
No Name Lake
Lake
B.L.
Mistes
SEE MAP 3
L-32E
Manitou
Stretch
LEGEND
798 Magnetic values in gammas
Datum 58,500 gammas
1000 gamma contours
100 gamma contours
Mag low
Contour interval - 100 gammas to 1000, 500 gammas to 5000
Instrument - Scintrex MP-2 Proton mag.
L-33E
L-34E
L-35E
L-36E
L-37E
L-38E
L-39E
L-40E
L-41E
L-42E
L-43E
L-45E
L-46E
L-47E
L-48E
L-49E
L-50E
L-51E
MAIN GRID
REFERENCE MAP

270


L-57E
L-59E
L-61E
L-63E
L-65E
L-67E
L-69E
L-71E
L-73E
20N
15N
10N
5N
BL
5S
10S
15S
MISSUS
LAKE
Mister
Lake
SEE MAP 4
L-54E
L-55E
L-56E
L-57E
L-58E
L-59E
L-60E
L-61E
L-62E
L-63E
L-64E
L-65E
L-66 E
L-67 E
L-68 E
L-70 E
L-71 E
L-72 E
L-73 E
Manitou
Stretch
N
LEGEND
Mag netic values in gammas
Datum 58,500 gammas
1000 gamma contours
100 gamma contours
Mag flw
Contour interval – 100 gammas to 1500,
500 gammas to 5000
Instrument – Scintrex MF-2 Proton mag
MAIN GRID
REFERENCE MAP

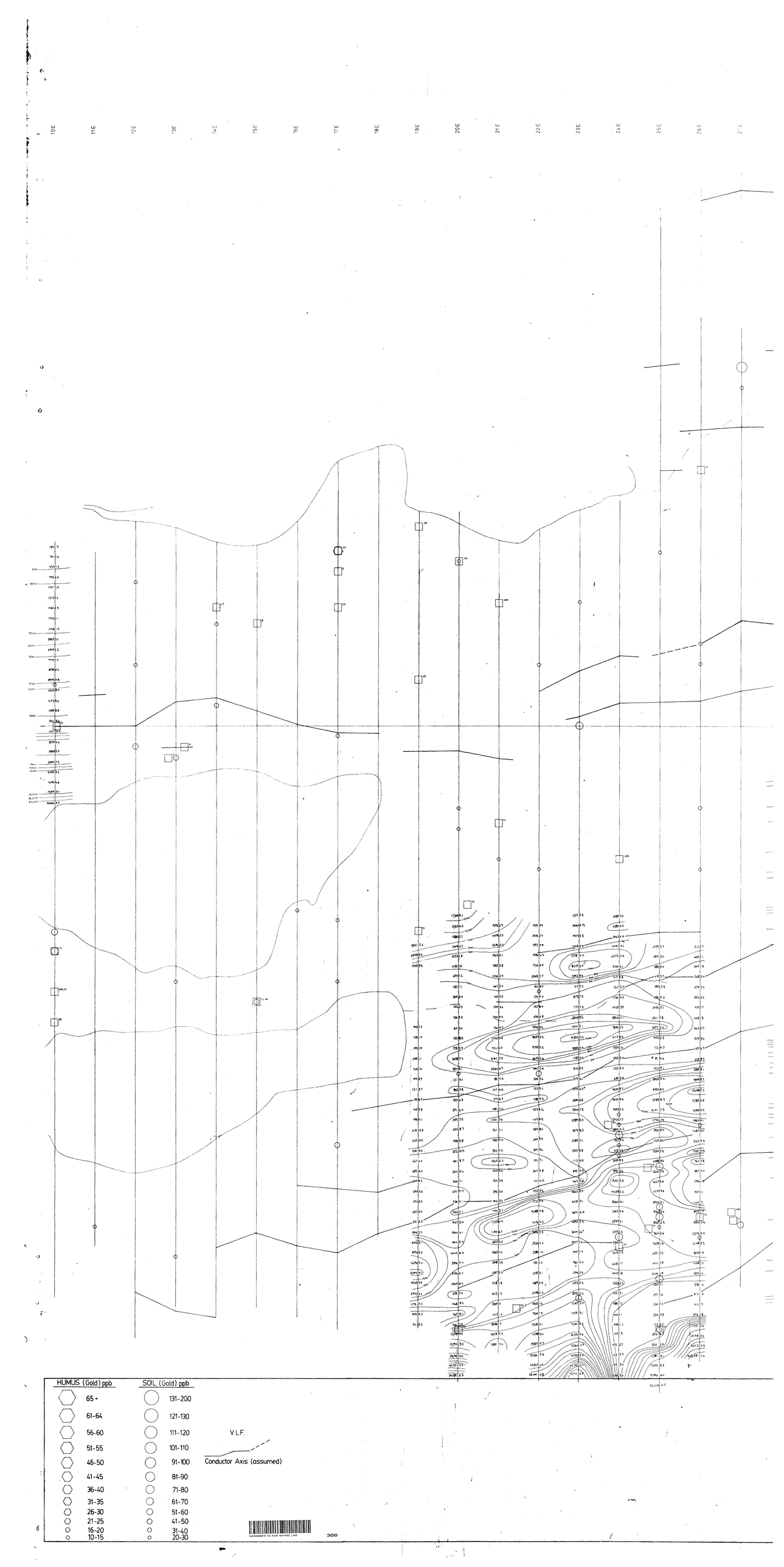


290

LEGEND

Magnetic values in gammas
Datum 58,500 gammas
1000 gamma contours
100 gamma contours
Mag low
Contour interval - 100 gammas to 1500, 500 gammas to 5000

Instrument - Scintrex MP-2 Proton mag.



HUMUS (Gold) ppb	SOIL (Gold) ppb
65 +	131-200
61-64	121-130
56-60	111-120
51-55	101-110
46-50	91-100
41-45	81-90
36-40	71-80
31-35	61-70
26-30	51-60
21-25	41-50
16-20	31-40
10-15	20-30

V.L.F.

Conductor Axis (assumed)

13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 00 1E 2E 3E 4E 5E

Humus (Gold) ppb

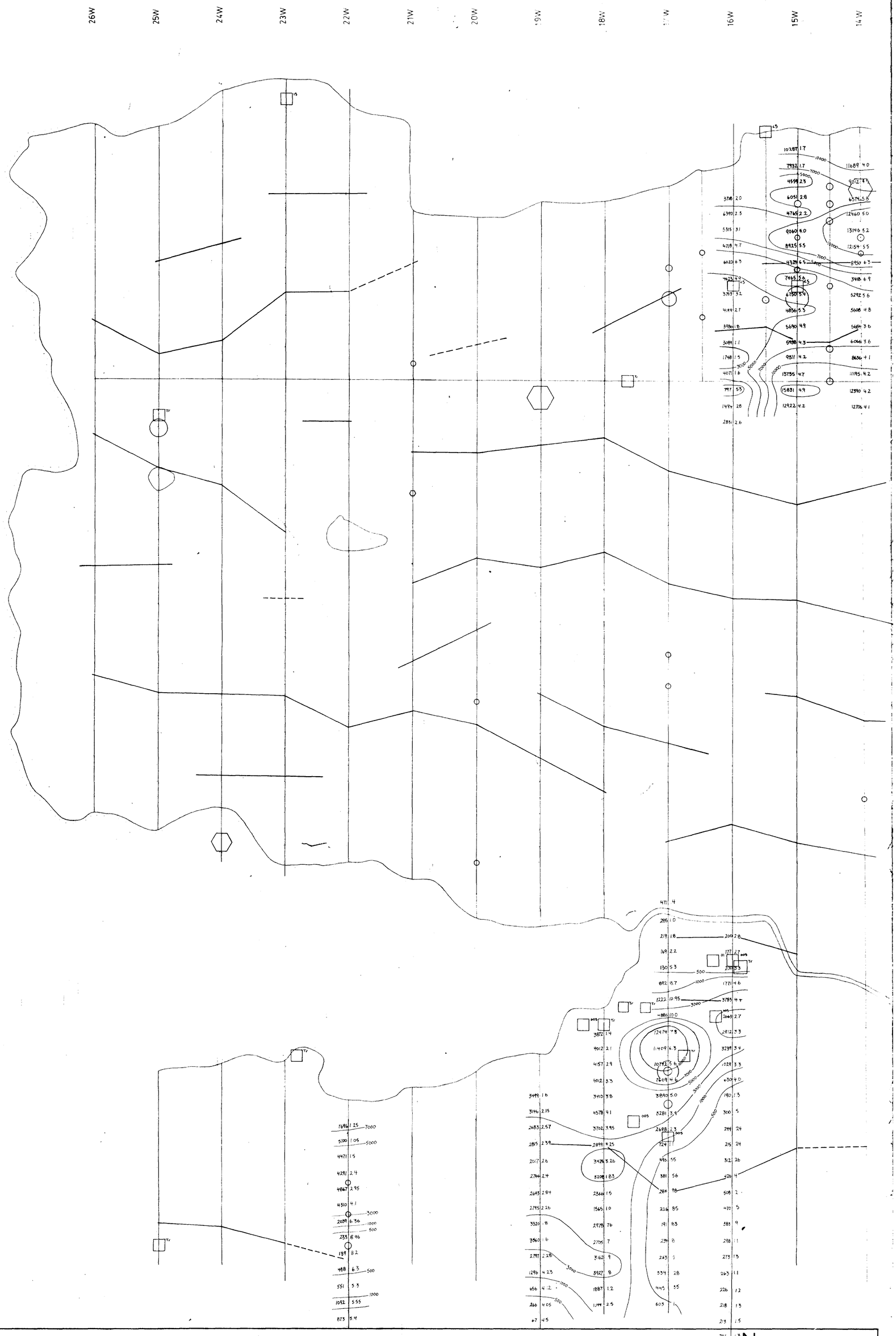
- 65+
- 61-64
- 56-60
- 51-55
- 46-50
- 41-45
- 36-40
- 31-35
- 26-30
- 21-25
- 16-20
- 10-15

Soil (Gold) ppb

- 131-200
- 121-130
- 111-120
- 101-110
- 91-100
- 81-90
- 71-80
- 61-70
- 51-60
- 41-50
- 31-40
- 20-30

V.L.F.

Conductor Axis (assumed)



Humus (Gold) ppb	Soil (Gold) ppb
65+	131-200
61-64	121-130
56-60	111-120
51-55	101-110
46-50	91-100
41-45	81-90
36-40	71-80
31-35	61-70
26-30	51-60
21-25	41-50
16-20	31-40
10-15	20-30

V.L.F.

Conductor Axis (assumed)

320

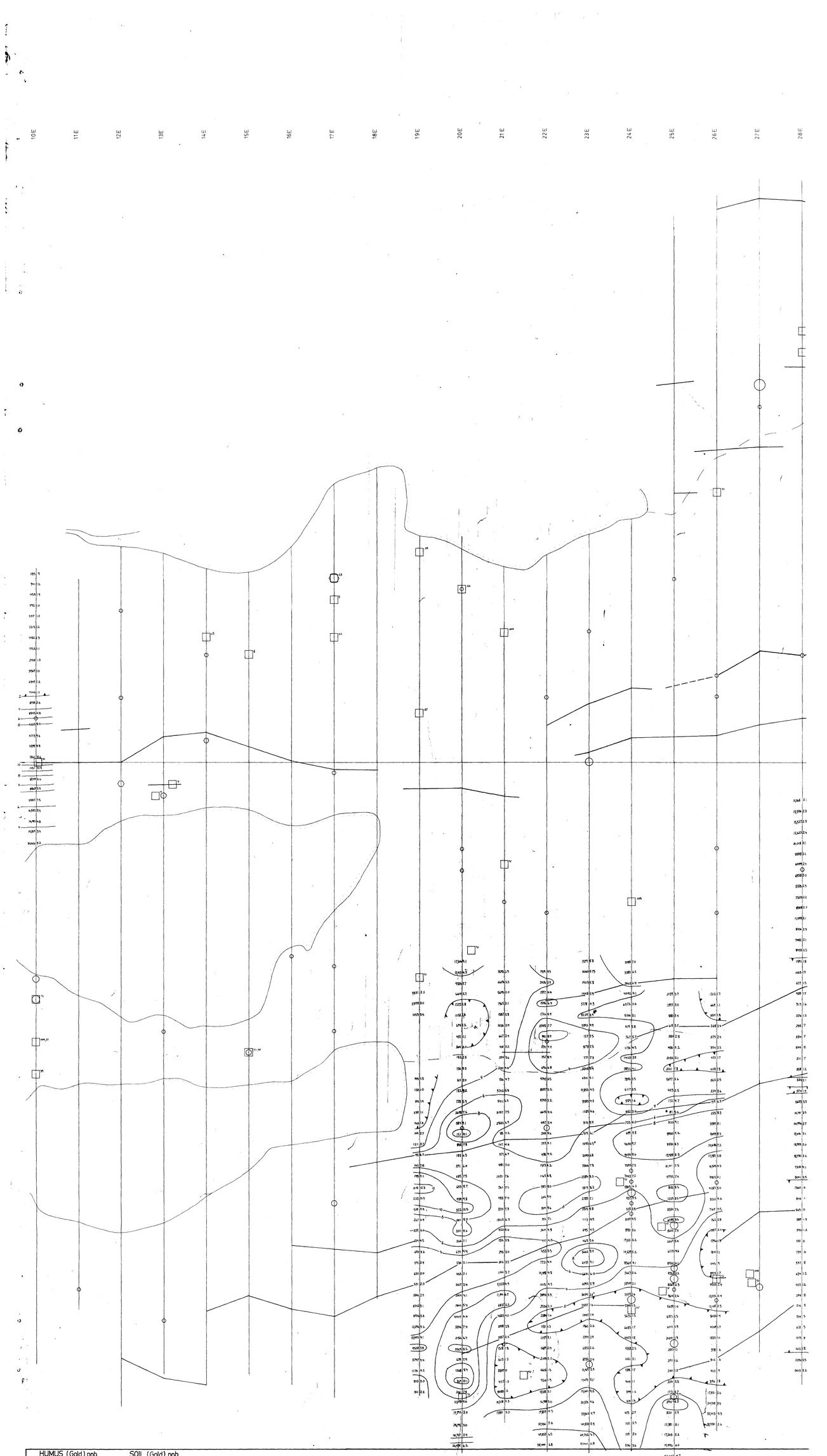
SPARTON RESOURCES INC.

Filtered Resistivity / Frequency Effect Plan

WEST SHEET

Scale 1 : 2500

#63-4320



HUMUS (Gold) ppb	SOIL (Gold) ppb
65 +	131-200
61-64	121-130
56-60	111-120
51-55	101-110
46-50	91-100
41-45	81-90
36-40	71-80
31-35	61-70
26-30	51-60
21-25	41-50
16-20	31-40
10-15	20-30

V.L.F.

Conductor Axis (assumed)

13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 00 1E 2E 3E 4E 5E 6E 7E 8E 9E

Humus (Gold) ppb	Soil (Gold) ppb
65+	131–200
61–64	121–130
56–60	111–120
51–55	101–110
46–50	91–100
41–45	81–90
36–40	71–80
31–35	61–70
26–30	51–60
21–25	41–50
16–20	31–40
10–15	20–30

V.L.F.

Conductor Axis (assumed)

N

SPARTON RESOURCES INC.

Filtered Resistivity/Frequency Effect Plan

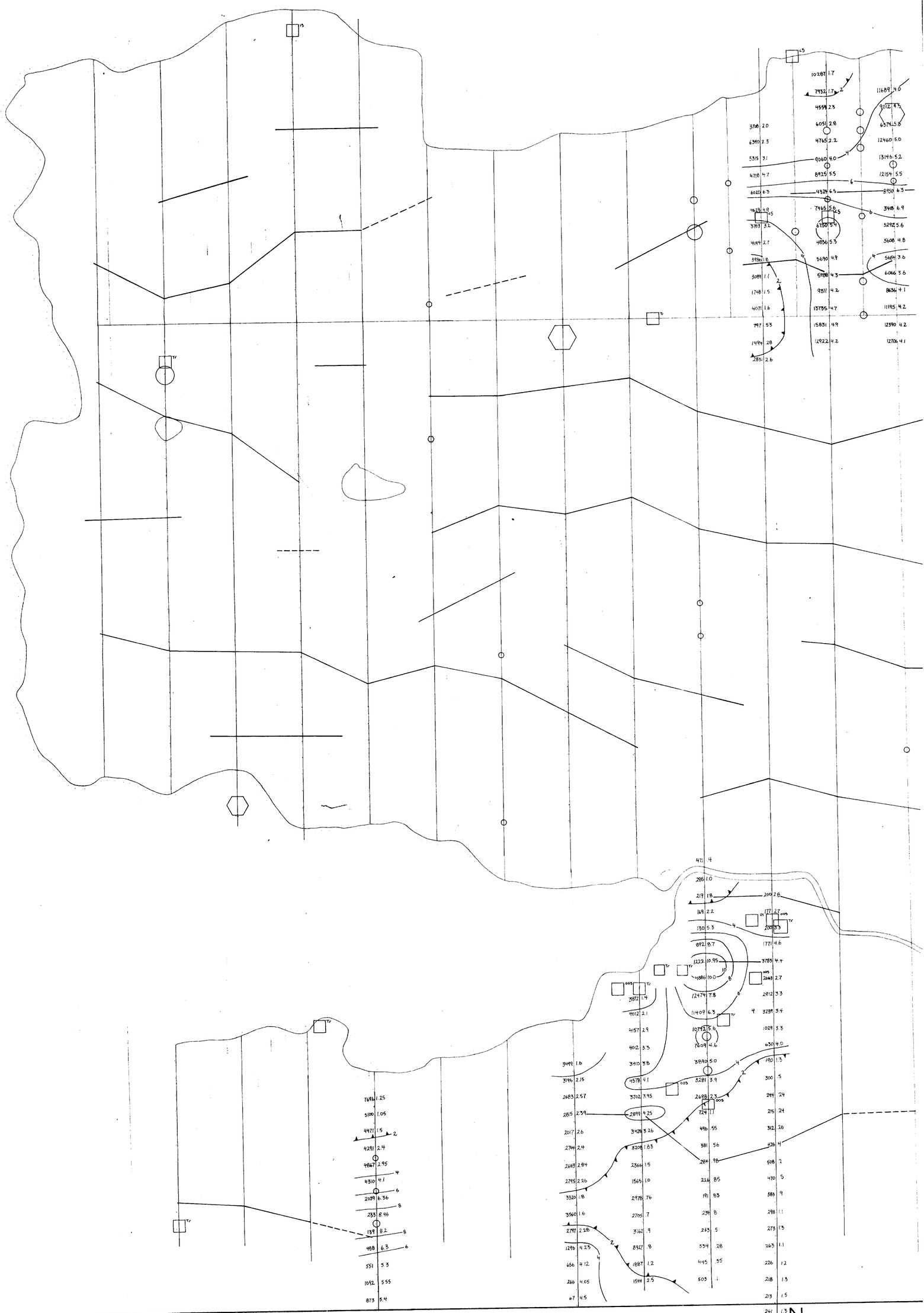
CENTRAL SHEET

Scale 1:2500 | #63-4320

52F03NE0019 63.4320 NAPANEE LAKE

340

26W 25W 24W 23W 22W 21W 20W 19W 18W 17W 16W 15W 14W



Humus (Gold) ppb	Soil (Gold) ppb
65+	131-200
61-64	121-130
56-60	111-120
51-55	101-110
46-50	91-100
41-45	81-90
36-40	71-80
31-35	61-70
26-30	51-60
21-25	41-50
16-20	31-40
10-15	20-30

V.L.F.

Conductor Axis (assumed)

N

SPARTON RESOURCES INC.

Filtered Resistivity / Frequency Effect Plan

WEST SHEET

Scale 1 : 2500

#63.4320

52F03NE0019 63.4320 NAPANEE LAKE

NOV. '83

L-26W L-24W L-22W L-20W L-18W L-16W L-14W L-12W L-10W

10N

5N

0

B.L. Az 090°

5S

SEE EAST GRID

SEE MAP 2

Straw Lake

Swamp
No O/C
Jackpine and Moss Forest
Cedar Swamp
Dead Fall
Labrador Tea Swamp
Hilly and Humacky
Flat Ground
Low Ground
Grass Swamp
MILL
SLOPE
TRENCH
DRILL ROAD
AIR RAISE
WASTE DUMP
SHAFT
TRENCHES
D.D.H. 83-5
D.D.H. 83-2
Camp
Logging Camp
332'
401'

L-26W L-25W L-24W L-23W L-22W L-21W L-20W L-19W L-18W L-17W L-16W L-15W L-14W L-13W L-12W L-11W L-10W L-9W

LEGEND

- 6 GRANITES ; A) Diorite , B) Rapikivi , C) Granodiorite
- 5 FELDSPAR PORPHYRY ; A) Massive, B) Porphyritic, C) Quartz
- 4 METASEDIMENTS ; A) Volcanic (Tuffaceous), B) Arkosic, C) Siltstone/Argillite, D) Chert
- 3 FELSIC VOLCANICS ; A) Crystal Tuff, B) Tuff, C) Lapilli Tuff, D) Agglomerate, E) Sericite Schists
- 2 INTERMEDIATE VOLCANICS ; A) Crystal Tuff, B) Tuff, C) Lapilli Tuff
- 1 MAFIC VOLCANICS ; A) Tuff, B) Lapilli Tuff, C) Flow

SYMBOLS

- Geological Contact - defined, assumed
- Outcrop
- Strike and Dip
- Trench or Pit
- Slope
- Buildings
- Claim Posts
- Swamp
- 83-5 D. Drill Hole (Year, Number)

STRUCTURE AND ALTERATION

a) Foliated	l) Hematite
b) Massive	m) Magnetite
c) Siliceous	n) Fuchsite
d) Quartz Eye	o) Limonite (intercalated)
e) Quartz Stringers / Veining	p) Crossbedding
f) Sericite	q) Lithological Tops
g) Chlorite	r) Interbedded / Interbanded
h) Carbonate	s) Lapilli-size Fragments
i) Carbonate + Stringers / Veining	t) Banded
j) Disseminated Sulfides	u) Brecciated
k) Sulfide Stringers	v) Schist

52H03NE0019 63.4320 NAPANEE LAKE

360

MAIN GRID

Sheet No.1 Sheet No.2 Sheet No.3 Sheet No.4 Sheet No.5 Sheet No.6

West Grid

Straw Lake

REFERENCE MAP

MILES

#63.4320

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
MAIN GRID, SHEET NO. 1

GEOLOGICAL MAP

SCALE: 1:2500 | N.T.S.: 52 F/3 | DATE: DEC., 1983

L-8W L-6W L-4W L-2W L-0 L-2E L-4E L-6E L-8E L-10E

Straw Lake

Floyd Creek

CAMP

Labrador Tea Swamp

5N

0

5S

10S

Glacial Till

No O/C

Glacial Till and Float

MILL SLOPE

TRENCH

TRENCHES

PIT No. 1

PIT No. 2

PIT No. 3

PIT No. 4

PIT No. 5

PIT No. 6

PIT No. 7

Road

Old Trench

Low Ground

Swamp Area

D.D.H. 83-1

253'

B.L. Az 090°

SEE MAP 1

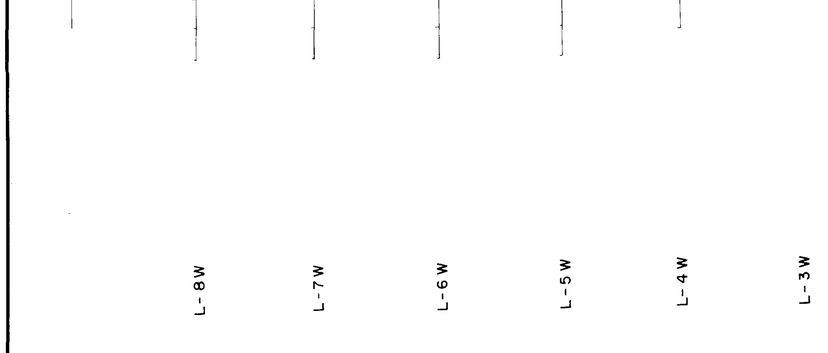
SEE MAP 3

Centre Lake

Rick Lake

Vizor Lake

L-8W L-7W L-6W L-5W L-4W L-3W L-2W L-1W L-0 L-1E L-2E L-3E L-4E L-5E L-6E L-7E L-8E L-9E L-10E



LEGEND

- 6 — GRANITES ; A) Diorite , B) Rapikivi , C) Granodiorite
- 5 — FELDSPAR PORPHYRY ; A) Massive, B) Porphyritic, C) Quartz
- 4 — METASEDIMENTS ; A) Volcanic (Tuffaceous), B) Arkosic, C) Siltstone / Argillite, D) Chert
- 3 — FELSIC VOLCANICS ; A) Crystal Tuff, B) Tuff, C) Lapilli Tuff, D) Agglomerate, E) Sericite Schists
- 2 — INTERMEDIATE VOLCANICS ; A) Crystal Tuff, B) Tuff, C) Lapilli Tuff
- 1 — MAFIC VOLCANICS ; A) Tuff, B) Lapilli Tuff, C) Flow

SYMBOLS

- Geological Contact - defined, assumed
- Outcrop
- Strike and Dip
- Trench or Pit
- Slope
- Buildings
- Claim Posts
- Swamp
- D. Drill Hole (Year, Number) — 83-5

STRUCTURE AND ALTERATION

a) Foliated	i) Hematite
b) Massive	m) Magnetite
c) Siliceous	n) Fuchsite
d) Quartz Eye	o) Limonite (intercalated)
e) Quartz Stringers / Veining	p) Crossbedding
f) Sericite	q) Lithological Tops
g) Chlorite	r) Interbedded / Interbanded
h) Carbonate	s) Lapilli - size Fragments
i) Carbonate + Stringers / Veining	t) Banded
j) Disseminated Sulfides	u) Brecciated
k) Sulfide Stringers	v) Schist

#63.4320

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
MAIN GRID, SHEET NO. 2

GEOLOGICAL MAP

SCALE: 1:2500 | N.T.S.: 52F/3 | DATE: DEC., 1983

L-12E L-14E L-16E L-18E L-20E L-22E L-24E L-26E L-28E L-30E

10N 5N 0 5S 10S

Floyd Lake

Rick Lake

Paled Lake

Nameless Lake

Low Lake

Glacial Till

No O/C

Swamp

Low Ground

Wet Low Ground

Grass Swamp

Cedar Swamp

Swamp – Alders and Cedar

TRENCH

CONTACT ZONE

B. L.

SEE MAP 2

SEE MAP 4

L-11E L-12E L-13E L-14E L-15E L-16E L-17E L-18E L-19E L-20E L-21E L-22E L-23E L-24E L-25E L-26E L-27E L-28E L-29E L-30E L-31E L-32E

380

52F03NE2819 63.4320 NAPANEE LAKE

MAIN GRID

REFERENCE MAP

LEGEND

- 6 GRANITES ; A) Diorite , B) Rapikivi , C) Granodiorite
- 5 FELDSPAR PORPHYRY ; A) Massive, B) Porphyritic, C) Quartz
- 4 METASEDIMENTS ; A) Volcanic (Tuffaceous), B) Arkosic, C) Siltstone/Argillite, D) Chert
- 3 FELSIC VOLCANICS ; A) Crystal Tuff, B) Tuff, C) Lapilli Tuff, D) Agglomerate, E) Sericite Schists
- 2 INTERMEDIATE VOLCANICS ; A) Crystal Tuff, B) Tuff, C) Lapilli Tuff
- 1 MAFIC VOLCANICS ; A) Tuff, B) Lapilli Tuff, C) Flow

SYMBOLS

- Geological Contact - defined, assumed
- Outcrop
- Strike and Dip
- Trench or Pit
- Slope
- Buildings
- Claim Posts
- Swamp
- 83-5 Drill Hole (Year, Number)

STRUCTURE AND ALTERATION

a)	Foliated	l)	Hematite
b)	Massive	m)	Magnetite
c)	Siliceous	n)	Fuchsite
d)	Quartz Eye	o)	Limonite (intercalated)
e)	Quartz Stringers / Veining	p)	Crossbedding
f)	Sericite	q)	Lithological Tops
g)	Chlorite	r)	Interbedded / Interbanded
h)	Carbonate	s)	Lapilli - size Fragments
i)	Carbonate + Stringers / Veining	t)	Banded
j)	Disseminated Sulfides	u)	Breccia
k)	Sulfide Stringers	v)	Schist

#63-4320

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
MAIN GRID, SHEET NO. 3

GEOLOGICAL MAP

SCALE: 1 2500 | N.T.S.: 52F/3 | DATE: DEC., 1983

LEGEND

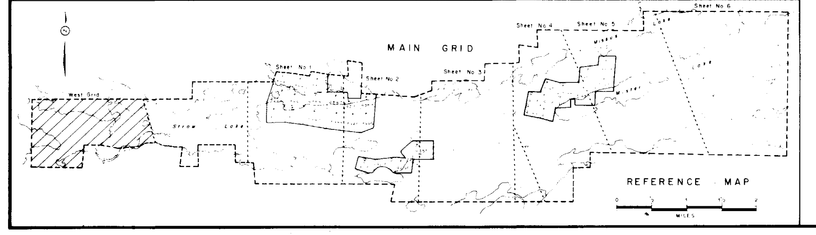
6	GRANITES ; A) Diorite , B) Rapakivi , C) Granodiorite
5	FELDSPAR PORPHYRY ; A) Massive, B) Porphyritic , C) Quartz
4	METASEDIMENTS ; A) Volcanic (Tuffaceous) , B) Arkosic, C) Siltstone/Argillite, D) Chert
3	FELSIC VOLCANICS ; A) Crystal Tuff, B) Tuff, C) Lapilli Tuff, D) Agglomerate , E) Sericite Schists
2	INTERMEDIATE VOLCANICS ; A) Crystal Tuff, B) Tuff, C) Lapilli Tuff
1	MAFIC VOLCANICS ; A) Tuff, B) Lapilli Tuff, C) Flow

SYMBOLS

- Geological Contact - defined, assumed
- Outcrop
- Strike and Dip
- Trench or Pit
- Slope
- Buildings
- Claim Posts
- Swamp
- D. Drill Hole (Year, Number) — 83-5

STRUCTURE AND ALTERATION

a) Foliated	l) Hematite
b) Massive	m) Magnetite
c) Siliceous	n) Fuchsite
d) Quartz Eye	o) Limonite (intercalated)
e) Quartz Stringers / Veining	p) Crossbedding
f) Sericite	q) Lithological Tops
g) Chlorite	r) Interbedded / Interbanded
h) Carbonate	s) Lapilli - size Fragments
i) Carbonate + Stringers / Veining	t) Banded
j) Disseminated Sulfides	u) Brecciated
k) Sulfide Stringers	v) Schist



#634320

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
WEST GRID

GEOLOGICAL MAP

SCALE : 1:2500 | N.T.S. : 52 F/3 | DATE : DEC., 1983

L-26W L-24W L-22W L-20W L-18W L-16W L-14W L-12W L-10W

10 N

5 N

0 B.L. Az 090°

5 S

10 S

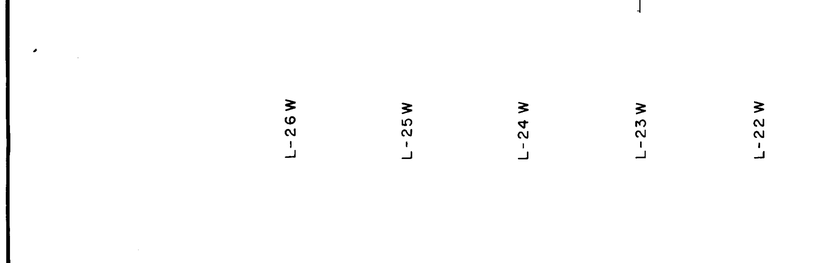
Straw Lake

Straw Lake

SEE EAST GRID

SEE MAP 2

L-26W L-25W L-24W L-23W L-22W L-21W L-20W L-19W L-18W L-17W L-16W L-15W L-14W L-13W L-12W L-11W L-10W L-9W



LEGEND

IN PHASE —— 17·8
Reading and Profile
·—· 24·8

+20° 0 -20°

Profile scale : 1cm = 10°
Instrument : Crone Radem
Transmitter station : NAA Cutler Maine 17·8 kHz
" " " 24·8 kHz (1984)
Conductor Axis :

#63·4320

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
MAIN GRID, SHEET NO. 1

VLF ELECTROMAGNETIC SURVEY

SCALE: 1:2500 | N.T.S.: 52 F/3 | DATE: DEC., 1983

L-8W L-6W L-4W L-2W L-0 L-2E L-4E L-6E L-8E L-10E

Straw Lake

Camp

Floyd Creek

5N

Road

B.L. Az 090°

0

SEE MAP 1

5S

Centre Lake

Rick Lake

SEE MAP 3

10S

Vizor Lake

L-8W L-7W L-6W L-5W L-4W L-3W L-2W L-1W L-0 L-1E L-2E L-3E L-4E L-5E L-6E L-7E L-8E L-9E L-10E

410

MAIN GRID

Sheet No. 1 Sheet No. 2 Sheet No. 3 Sheet No. 4 Sheet No. 5 Sheet No. 6

West Grid

Straw Lake Centre Lake Rick Lake Vizor Lake

REFERENCE MAP

MILES

N

LEGEND

IN PHASE ——— 17.8
Reading and Profile
- - - - 24.8

+20° 0 -20°

Profile scale : 1cm = 10°
Instrument : Crone Radem
Transmitter station : NAA Cutler Maine 17.8 kHz
" " " 24.8 kHz(1984)
Conductor Axis :

#63.4320

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
MAIN GRID, SHEET NO. 2

VLF ELECTROMAGNETIC SURVEY

SCALE: 1:2500 | N.T.S. | DATE: DEC., 1983

L-12 E L-14 E L-16 E L-18 E L-20 E L-22 E L-24 E L-26 E L-28 E L-30 E

10 N

5 N

0

5 S

10 S

Floyd Lake

Rick Lake

Paled Lake

Low Lake

B. L.

SEE MAP 2

SEE MAP 4

NUMBERINGS

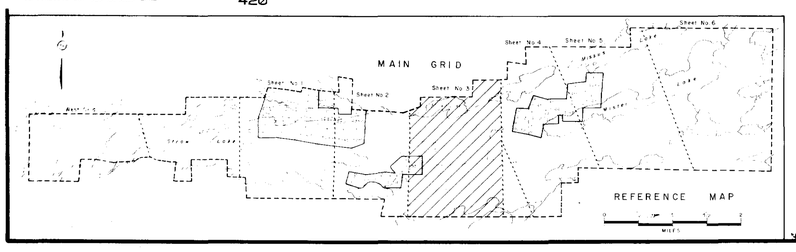
L-11 E L-12 E L-13 E L-14 E L-15 E L-16 E L-17 E L-18 E L-19 E L-20 E L-21 E L-22 E L-23 E L-24 E L-25 E L-26 E L-27 E L-28 E L-29 E L-30 E L-31 E L-32 E

LEGEND

IN PHASE ——— 17·8
Reading and Profile
——— 24·8

+20° 0 -20°

Profile scale : 1cm = 10°
Instrument : Crone Radem
Transmitter station : NAA Cutler Maine 17·8 kHz
" " " 24·8 kHz (1984)
Conductor Axis :



420

#63·4320

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
MAIN GRID, SHEET NO. 3

VLF ELECTROMAGNETIC SURVEY

SCALE: 1:2500 | N.T.S.: 52 F/3 | DATE: DEC., 1983

L-50E
L-48E
L-46E
L-44E
L-42E
L-40E
L-38E
L-36E
L-34E
L-32E
L-49E
L-47E
L-45E
L-43E
L-41E
L-39E
L-37E
L-35E
L-33E

Mistor

Streich

Manitou

No Name Lake

Lake

B.L. 47.5NE

B.L.

SEE MAP 3

LEGEND

IN PHASE ——— IP8
Reading and Profiles ——— 345

Profile scale 1cm = 10%
Instrument: Crone Radem
Transmitter station: NAA Cutler Maine (7.8 kHz, 24.8 kW (1984)
Conductor Axis

MAIN GRID

REFERENCE MAP

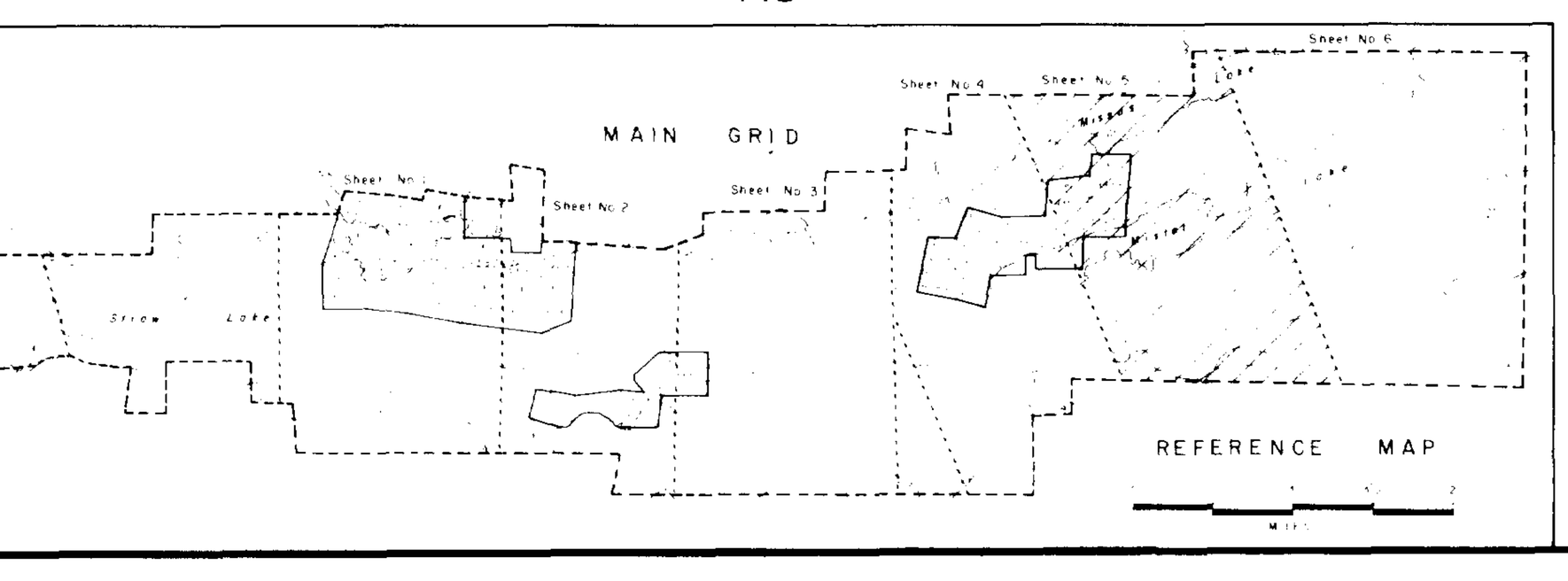
4.5N 3.5N 2.5N 1.5N 0.5N 0.5S 1.5S 2.5S 3.5S

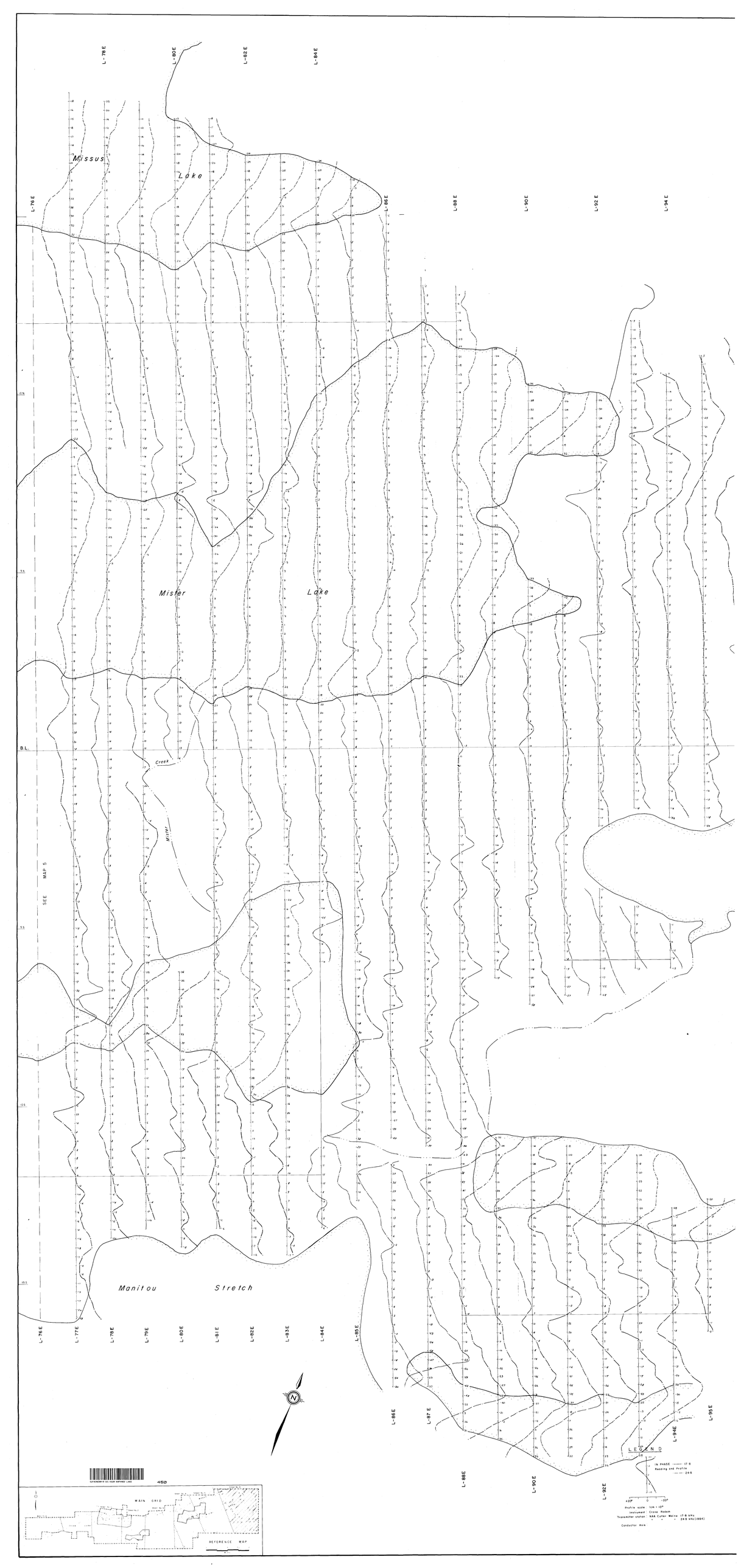
430

L-57E
L-59E
L-61E
L-63E
L-65E
L-67E
L-69E
L-71E
L-73E
20N
15N
10N
5N
B.L.
5S
10S
15S
SEE MAP 4
L-54E
Mister
Lake
L-55E
L-56E
L-57E
L-58E
L-59E
L-60E
L-61E
L-62E
L-63E
L-64E
L-65E
L-66 E
L-67 E
L-68 E
L-69E
L-70E
L-71E
L-72E
L-73E
Manitou
Stretch
LEGEND
IN PHASE 17·8
Reading and Profile
24·8
+20° 0 -20°
Profile scale : 1cm = 10°
Instrument : Crone Radem
Transmitter station : NAA Cutler Maine 17·8 kHz
" " " 24·8 kHz (1984)
Conductor Axis :

52F03NE0019 63.4320 NAPANEE LAKE

440




L-78E
L-80E
L-82E
L-84E
Missus
Lake
L-76E
L-86E
L-88E
L-90E
L-92E
L-94E
Mister
Lake
Creek
Mister
SEE MAP 5
Manitou
Stretch
L-76E
L-77E
L-78E
L-79E
L-80E
L-81E
L-82E
L-83E
L-84E
L-85E
L-86E
L-87E
L-88E
L-90E
L-92E
L-94E
L-95E
LEGEND
IN PHASE ——— 17.8
Reading and Profile —— 24.8
Profile scale 1 cm = 10%
Instrument Crone Hidem
Transmitter station NAA Cutler, Maine 17.8 kHz
24.8 kHz (1964)
Conductor Axis
MAIN GRID
REFERENCE MAP

15 N

10 N

SEE WEST GRID

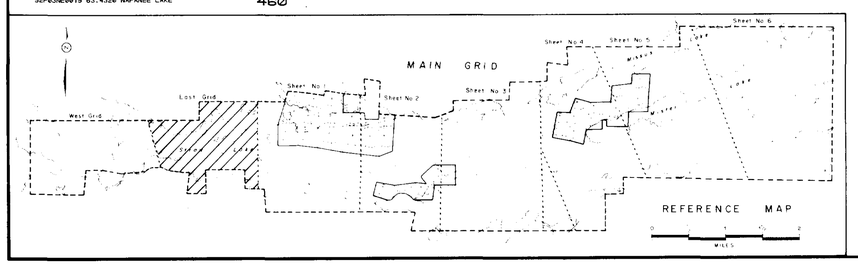
5 N

0 B.L.

5 S

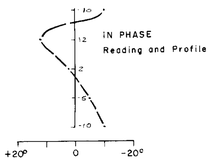
Straw Lake

L-52W L-51W L-50W L-49W L-48W L-47W L-46W L-45W L-44W L-43W L-42W L-41W L-40W L-39W L-38W L-37W L-36W L-35W L-34W L-33W L-32W



460

LEGEND



Profile scale : 1cm = 10°
Instrument : Crone Radem
Transmitter station : NAA Cutler Maine 24·8 kHz (1984)

Conductor Axis :

L-10W

L-11W

L-12W

L-13W

L-14W

L-15W

L-16W

L-17W

L-18W

L-19W

L-20W

L-21W

L-22W

L-23W

L-24W

L-25W

L-26W

L-27W

L-28W

Yoke

Thompson Bay

(Pipestone Lake)

T.L.-8N

B.L.
(0750')

10N

5N

0

5S

REFERENCE MAP

MAIN GRID

470

10E 11E 12E 13E 14E 15E 16E 17E 18E 19E 20E 21E 22E 23E 24E 25E 26E 27E 28E 29E 30E 31E 32E

131 - 200
121 - 130
111 - 120
101 - 110
91 - 100
81 - 90
71 - 80
61 - 70
51 - 60
41 - 50
31 - 40
20 - 30

S2F83NE0019 63.4320 NAPANEE LAKE

480

N

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

SOIL SURVEY
GOLD (ppb)

EAST SHEET

Scale: 1 2500

#63-4320

Sept 28,83 J.H.

13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 00 1E 2E 3E 4E 5E 6E 7E 8E 9E

131 - 200
121 - 130
111 - 120
101 - 110
91 - 100
81 - 90
71 - 80
61 - 70
51 - 60
41 - 50
31 - 40
20 - 30

N

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

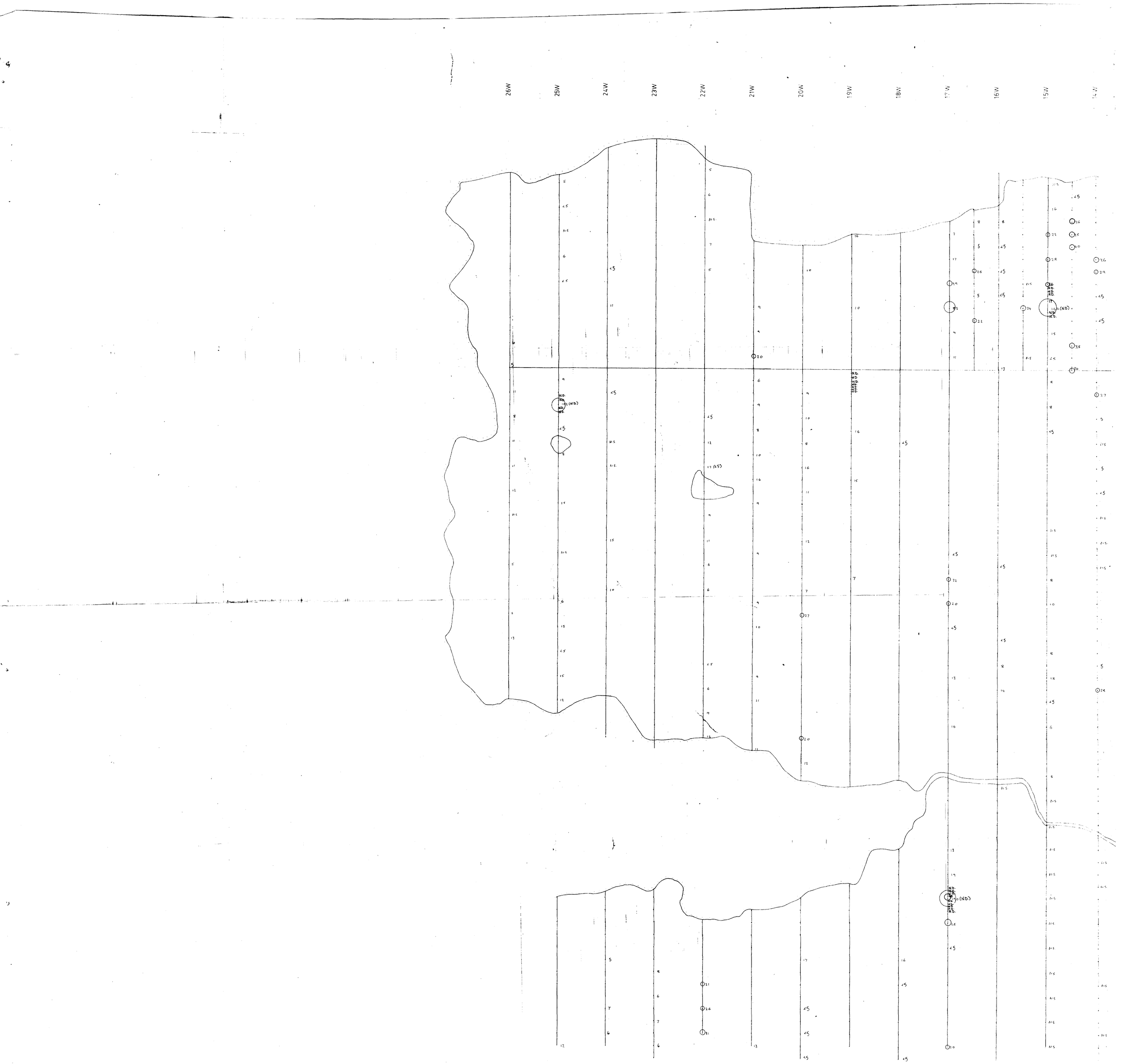
SOIL SURVEY
GOLD (ppb)

CENTRAL SHEET

Scale 1 : 2500

#63-4320

Sept. 28/83 S.H.
Oct. 24/83 S.H.



131 - 200
121 - 130
111 - 120
101 - 110
91 - 100
81 - 90
71 - 80
61 - 70
51 - 60
41 - 50
31 - 40
20 - 30

N

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

SOIL SURVEY
GOLD (ppb)

WEST SHEET

Scale 1 : 2500

#83-4320

52F03NE0019 83.4320 NAPANEE LAKE

500

Sept 28/83 JH
Nov 2/83

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

SOILS- GOLD
(ppb)

WEST GRID

Scale 1:2500

#63-4320

All data plotted Oct 28/86 JH

1W
2W
3W
4W
5W
6W
7W
8W
9W
10W
11W
12W
13W
14W
15W
16W
17W
18W
19W
20W
21W
22W
23W
24W
25W
26W
27W
28W

510

10E 11E 12E 13E 14E 15E 16E 17E 18E 19E 20E 21E 22E 23E 24E 25E 26E 27E 28E 29E 30E 31E 32E

N

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

SOILS—COPPER (ppm)

EAST SHEET

Scale: 1:2500

#63-4320

13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 00 1E 2E 3E 4E 5E 6E 7E 8E 9E

N

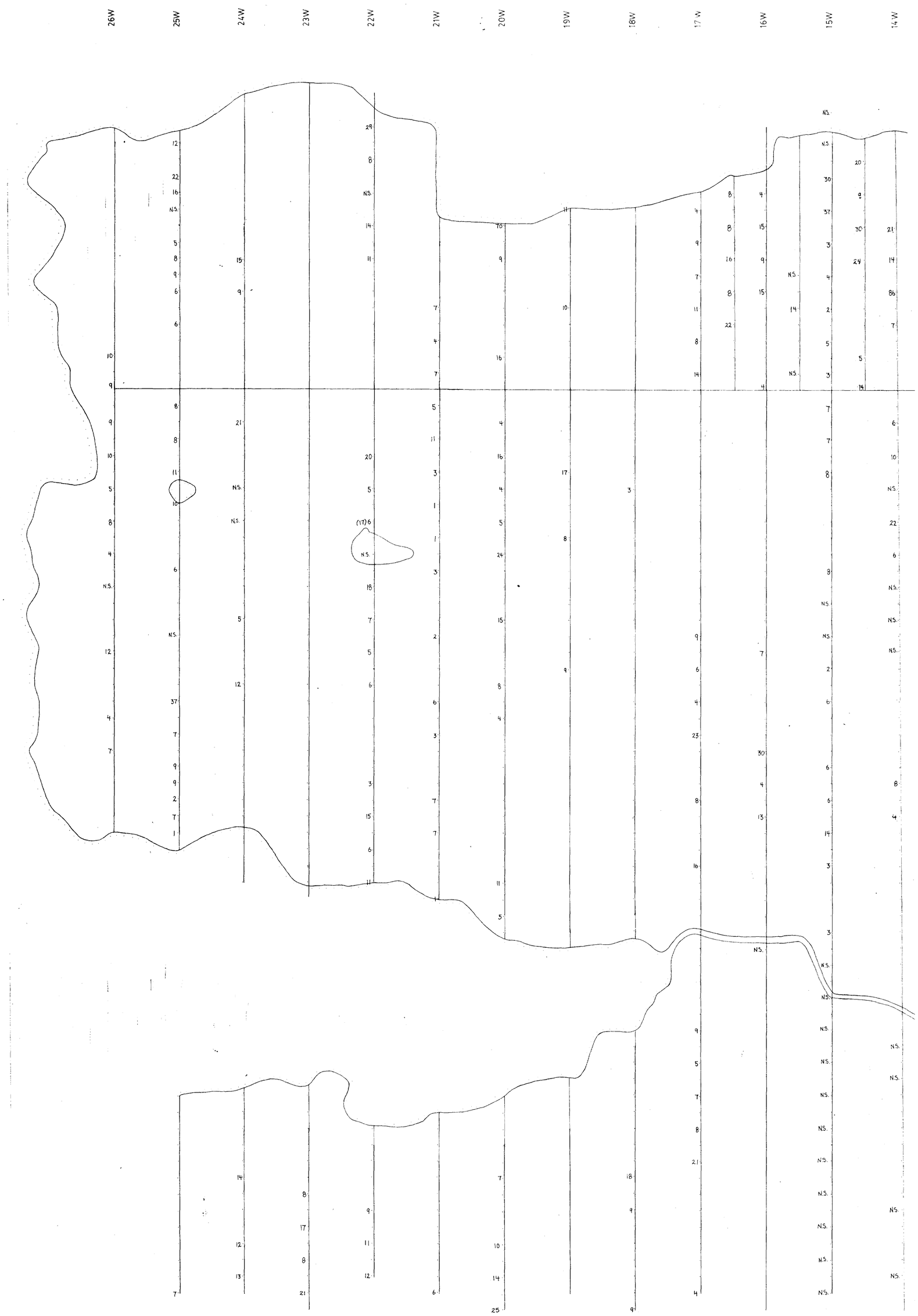
SPARTON RESOURCES INC.
STRAW LAKE PROJECT

SOILS – COPPER (ppm)

CENTRAL SHEET

Scale 1 : 2500

#63-4320



N

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

SOILS–COPPER (ppm)

WEST SHEET

Scale 1 : 2500

#63-4320

28 W 27 W 26 W 25 W 24 W 23 W 22 W 21 W 20 W 19 W 18 W 17 W 16 W 15 W 14 W 13 W 12 W 11 W 10 W 9 W 8 W 7 W 6 W 5 W 4 W 3 W 2 W 1 W

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

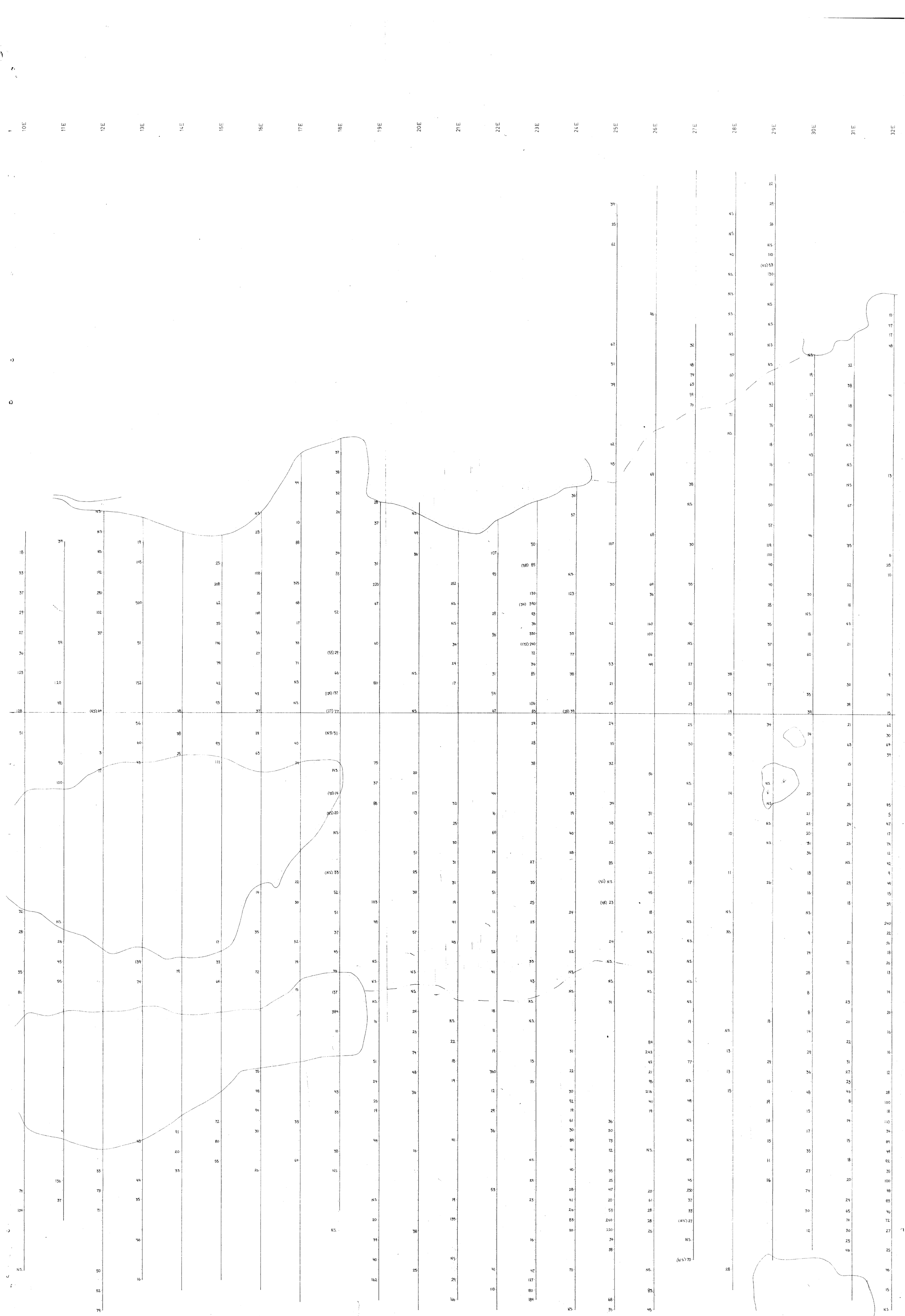
SOILS - COPPER (ppm)

WEST GRID

Scale 1: 2500

#83-4320

10E 11E 12E 13E 14E 15E 16E 17E 18E 19E 20E 21E 22E 23E 24E 25E 26E 27E 28E 29E 30E 31E 32E



SPARTON RESOURCES INC.
STRAW LAKE PROJECT

SOILS—ZINC (ppm)

EAST SHEET

Scale: 1:2500 | #63-4320

N

560

plotted Nov/83 J.H.

13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 00 1E 2E 3E 4E 5E 6E 7E 8E 9E

N

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

SOILS—ZINC (ppm)

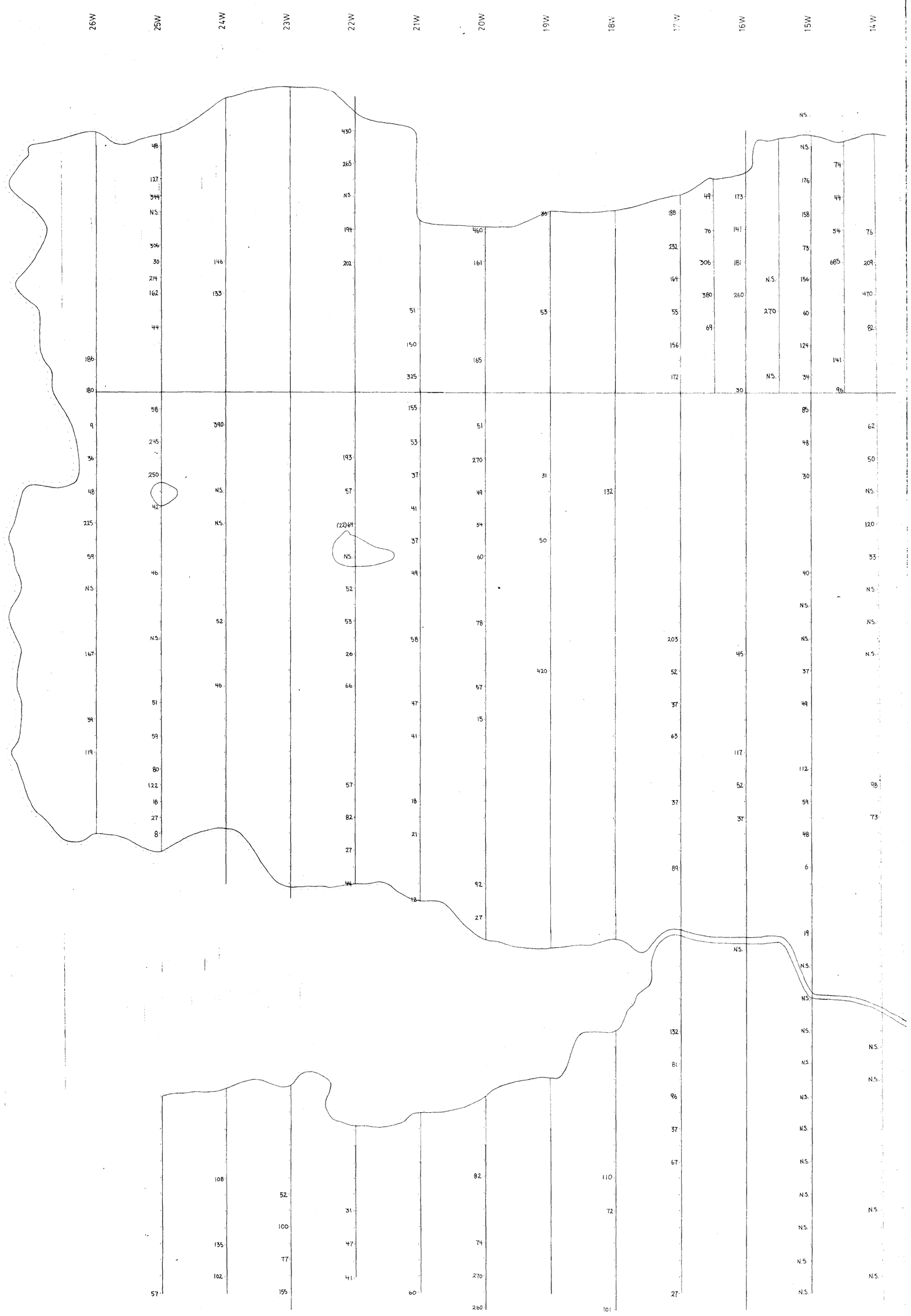
CENTRAL SHEET

Scale 1:2500 | #63-4320

52F03NE0019 63.4320 NAPANEE LAKE

570

plotted Nov 1/85 J.H.



N

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

SOILS—ZINC (ppm)

WEST SHEET

Scale 1 : 2500 | # 63-4320

580

plotted Nov/83 J.H.

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

SOILS-ZINC (ppm)

WEST GRID

Scale 1:2500

63-4320

plotted, Oct 28/83 J.H.

1W 2W 3W 4W 5W 6W 7W 8W 9W 10W 11W 12W 13W 14W 15W 16W 17W 18W 19W 20W 21W 22W 23W 24W 25W 26W 27W 28W

590

10E 11E 12E 13E 14E 15E 16E 17E 18E 19E 20E 21E 22E 23E 24E 25E 26E 27E 28E 29E 30E 31E 32E

◯	> 65
◯	61 - 64
◯	56 - 60
◯	51 - 55
◯	46 - 50
◯	41 - 45
◯	36 - 40
◯	31 - 35
◯	26 - 30
◯	21 - 25
◯	16 - 20
◯	10 - 15

SSFRONE0010 63.4320 NAPANEE LAKE

600

N

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

HUMUS SURVEY
GOLD (ppb)

EAST SHEET

Scale: 1:2500 | #63-4320

Sept. 24/83 JH

13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 00 1E 2E 3E 4E 5E 6E 7E 8E

> 65
61 - 64
56 - 60
51 - 55
46 - 50
41 - 45
36 - 40
31 - 35
26 - 30
21 - 25
16 - 20
10 - 15

N

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

HUMUS SURVEY
GOLD (ppb)

CENTRAL SHEET

Scale 1:2500 | | #63-4320

Dept 28/83 J.H.
Nov 15/83

620

Sept 28/83 SH
Nov 3/83

SPARTON RESOURCES INC.
STRAW LAKE PROJECT

HUMUS–GOLD
(ppb)

WEST GRID

Scale 1:2500

63-4320

plotted Oct 27/83 JH

1W
2W
3W
4W
5W
6W
7W
8W
9W
10W
11W
12W
13W
14W
15W
16W
17W
18W
19W
20W
21W
22W
23W
24W
25W
26W
27W
28W

630

END

lues in gammas
00 gammas
contours
contours

gammas to 1000
gammas to 5000
MP-2 Proton mag.

#63-4320

SPARTON RESOURCES INC.		
STRAW LAKE PROJECT EAST GRID		
MAGNETOMETER SURVEY		
SCALE: 1:2500	N.T.S. 52F/3	DATE: FEB., 1984

L-14 W
L-13 W
L-12 W
L-11 W
L-10 W
L-9 W
L-8 W
L-7 W
L-6 W
L-5 W
L-4 W
L-3 W
L-2 W
L-1 W

10 N
5 N
0
5 S

Yoke Lake

Yoke Lake

Straw Creek

Straw Lake

LEGEND

793 Magnetic values in gammas
Datum 59,000 gammas
1000 gamma contours
100 gamma contours
Mag low
Contour interval – 100 gammas to 1000,
500 gammas to 5000
Instrument – Scintrex MP-2 Proton mag.

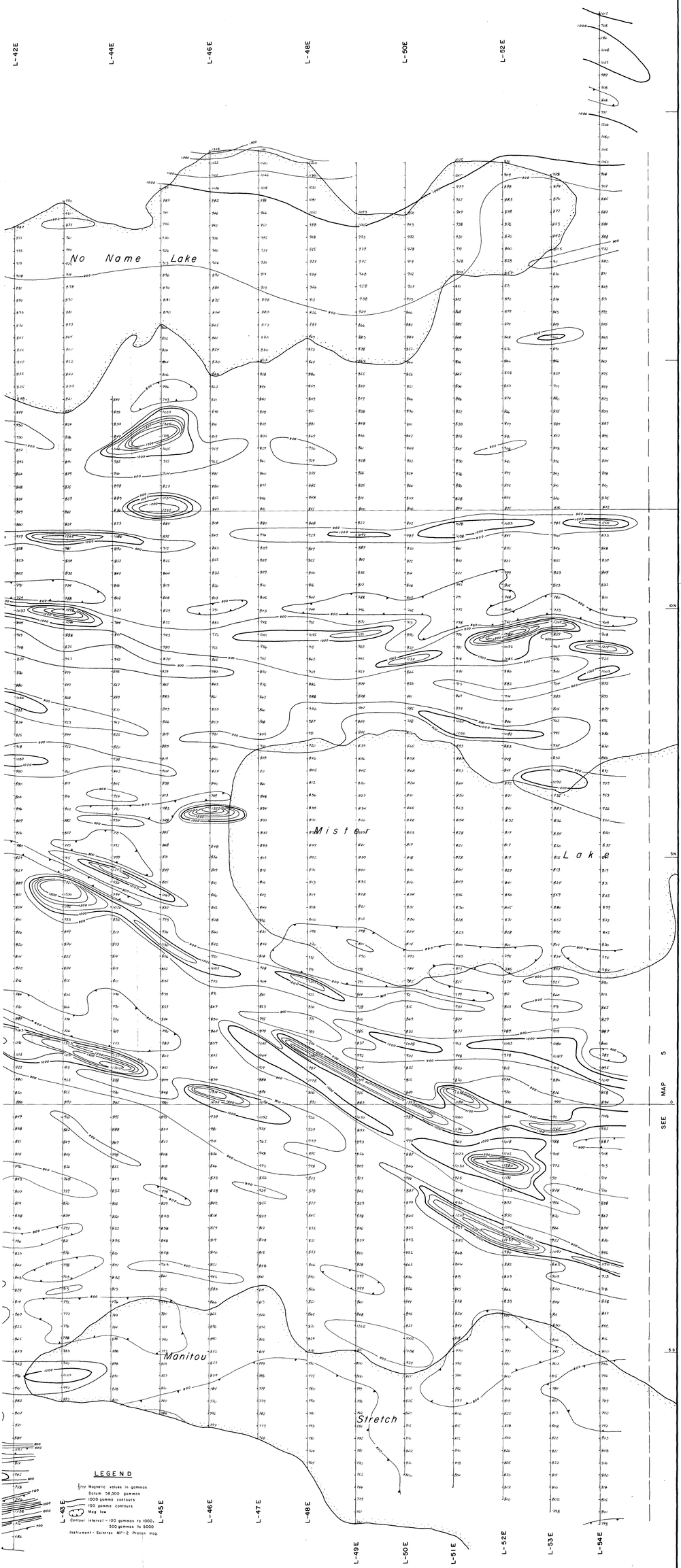
#63-4320

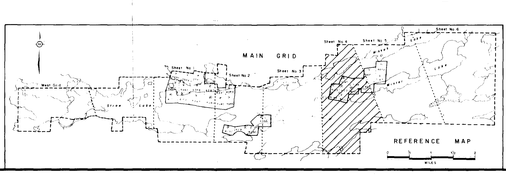
SPARTON RESOURCES INC.

STRAW LAKE PROJECT
WEST GRID

MAGNETOMETER SURVEY

SCALE: 1:2500 | N.T.S.: 52 F/3 | DATE: DEC., 1983





#63.4320

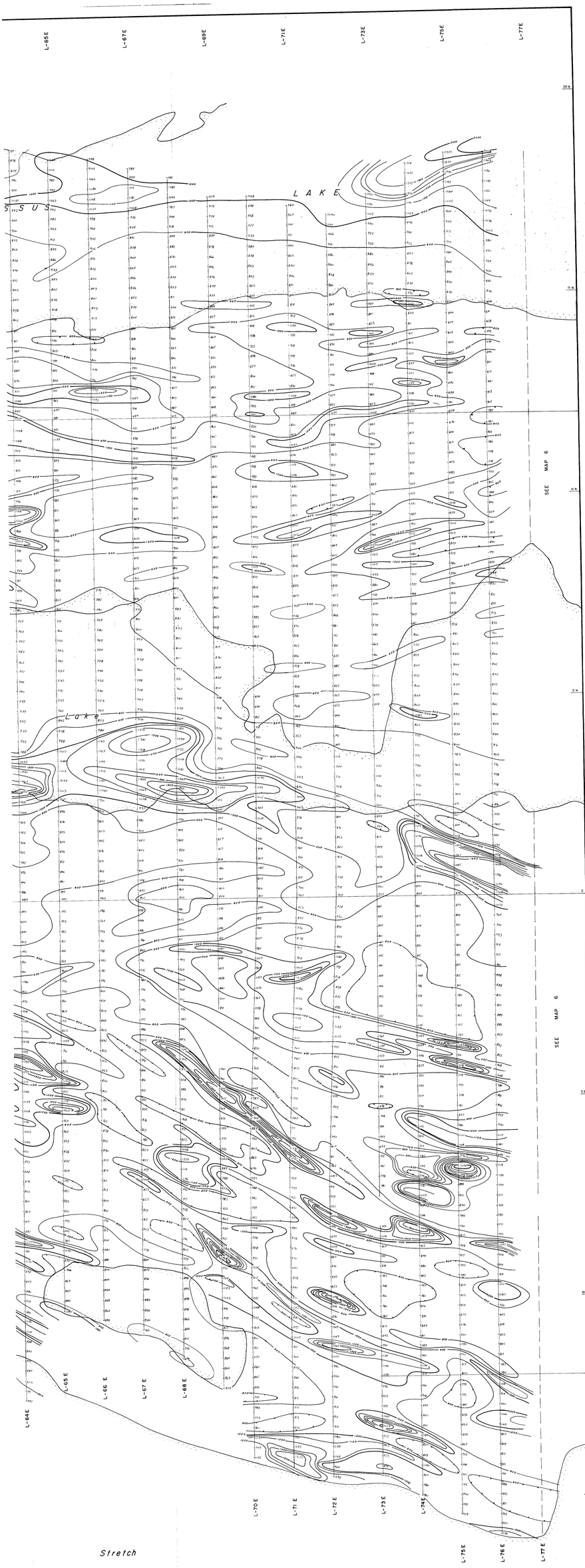
SPARTON RESOURCES INC.

STRAW LAKE PROJECT

MAIN GRID, SHEET NO. 4

MAGNETOMETER SURVEY

SCALE: 1:2500	N.T.S.: 52F/3	DATE: DEC., 1983



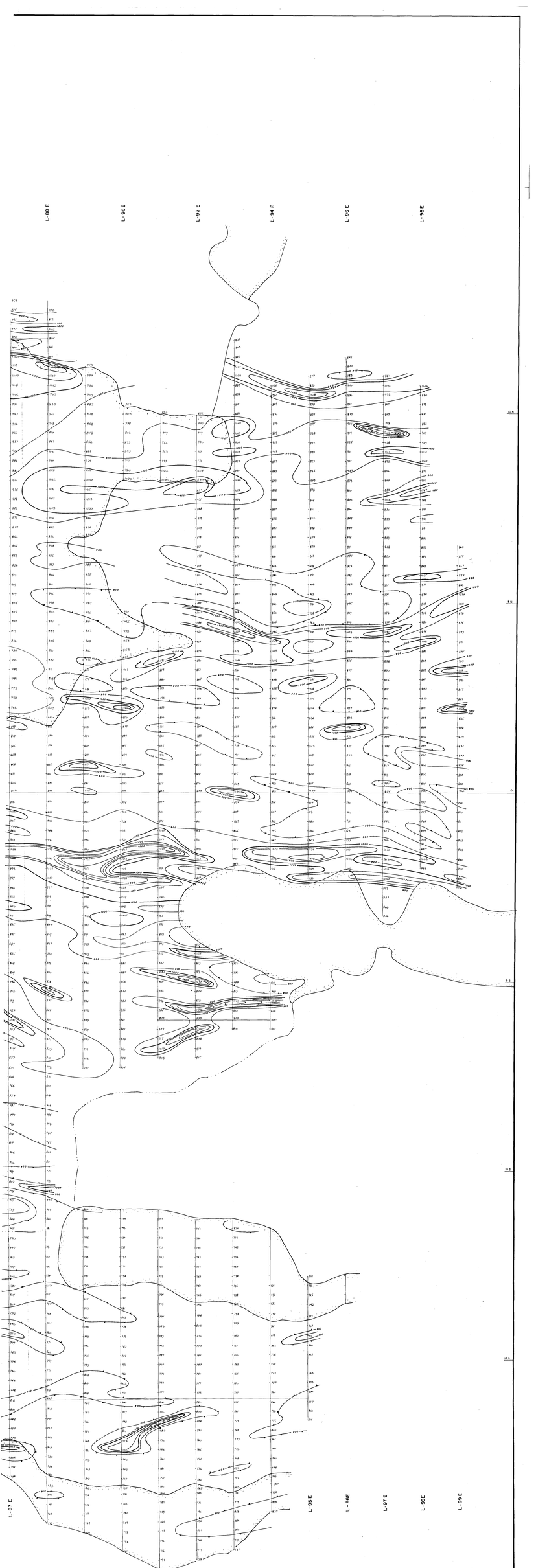
LEGEND

Total Magnetic values in gammas
Datum 58,500 gammas
1000 gamma contours
100 gamma contours
Mag. low
Contour interval - 100 gammas to 1500, 500 gammas to 5000

Instrument - Scintrex MP-2 Proton mag.

#63-4320

SPARTON RESOURCES INC.	
STRAW LAKE PROJECT MAIN GRID, SHEET NO. 5	
MAGNETOMETER SURVEY	
SCALE 1:2500	N.T.S. 52 F/3
DATE DEC., 198	



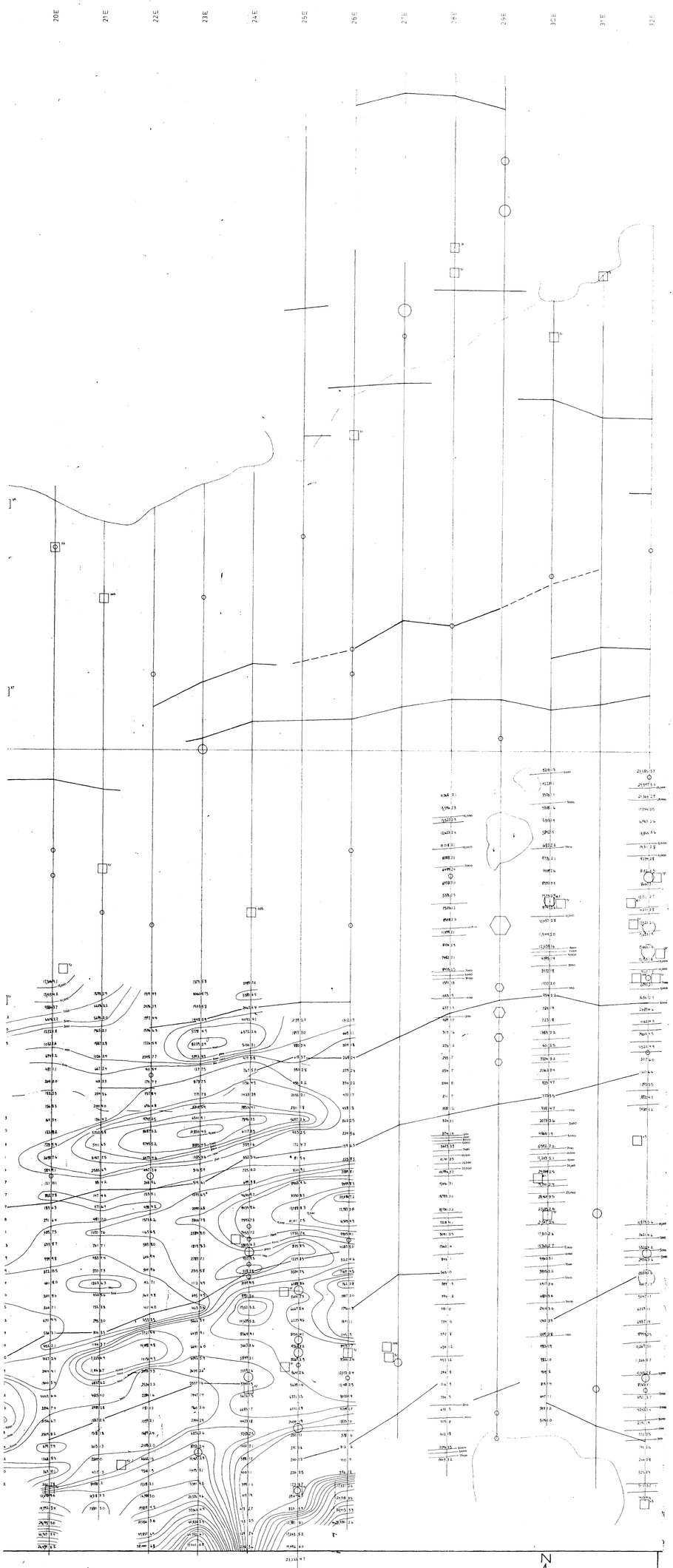
LEGEND

- 1234 Magnetic values in gamma (value 58,500 gammas)
- 1000 gamma contours
- 500 gamma contours
- Mag low
- Contour interval = 100 gammas to 1500, 500 gammas to 5000

Instrument - Scintrex MF-2 Proton mag.

#83-4320

SPARTON RESOURCES INC.		
STRAW LAKE PROJECT MAIN GRID, SHEET NO. 6		
MAGNETOMETER SURVEY		
SCALE: 1:2500	N.T.S.: 52 F/3	DATE: DEC., 1983



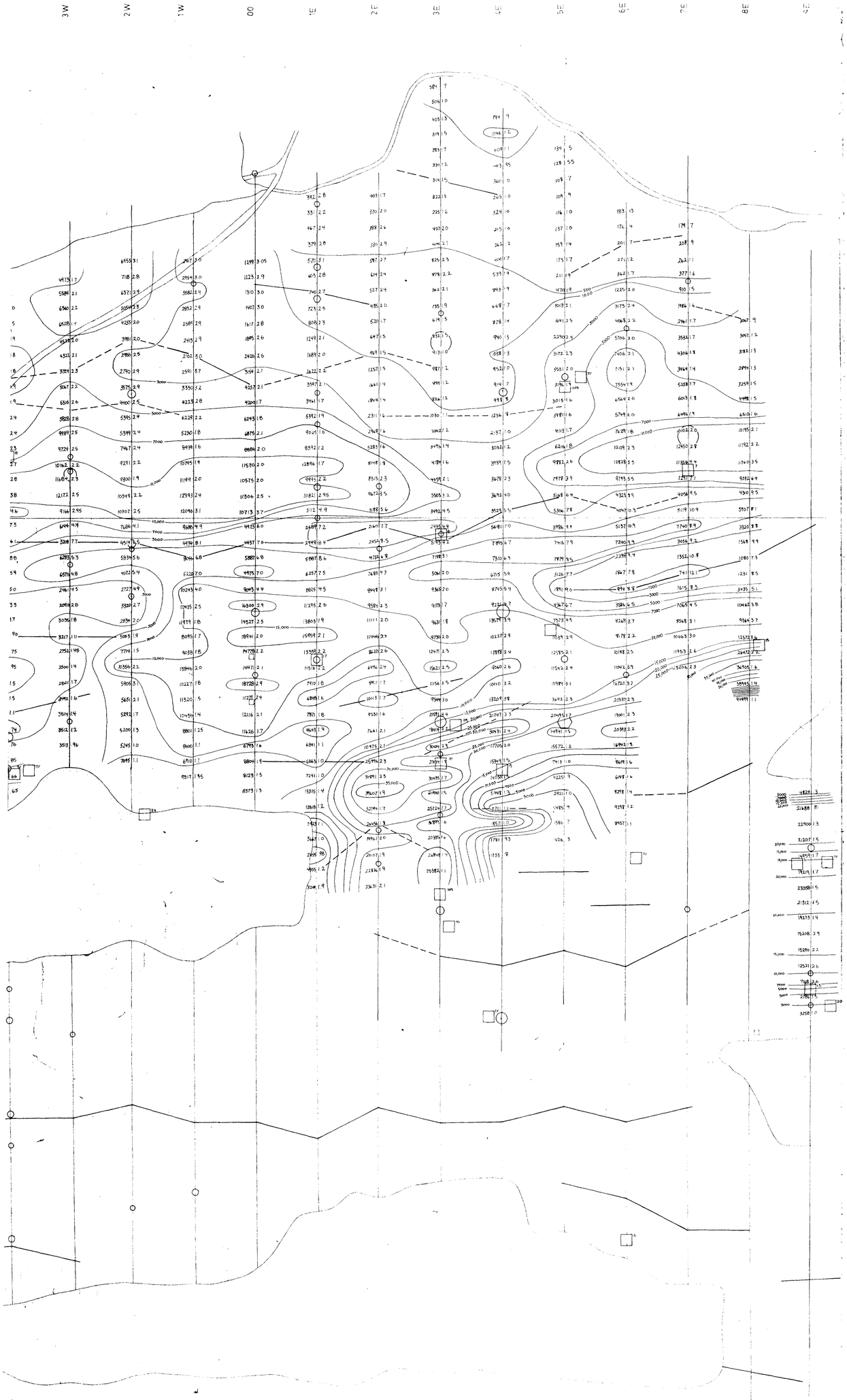
N

SPARTON RESOURCES INC.

Filtered Resistivity / Frequency Effect Plan

EAST SHEET

Scale 1 2500 | #63-4320



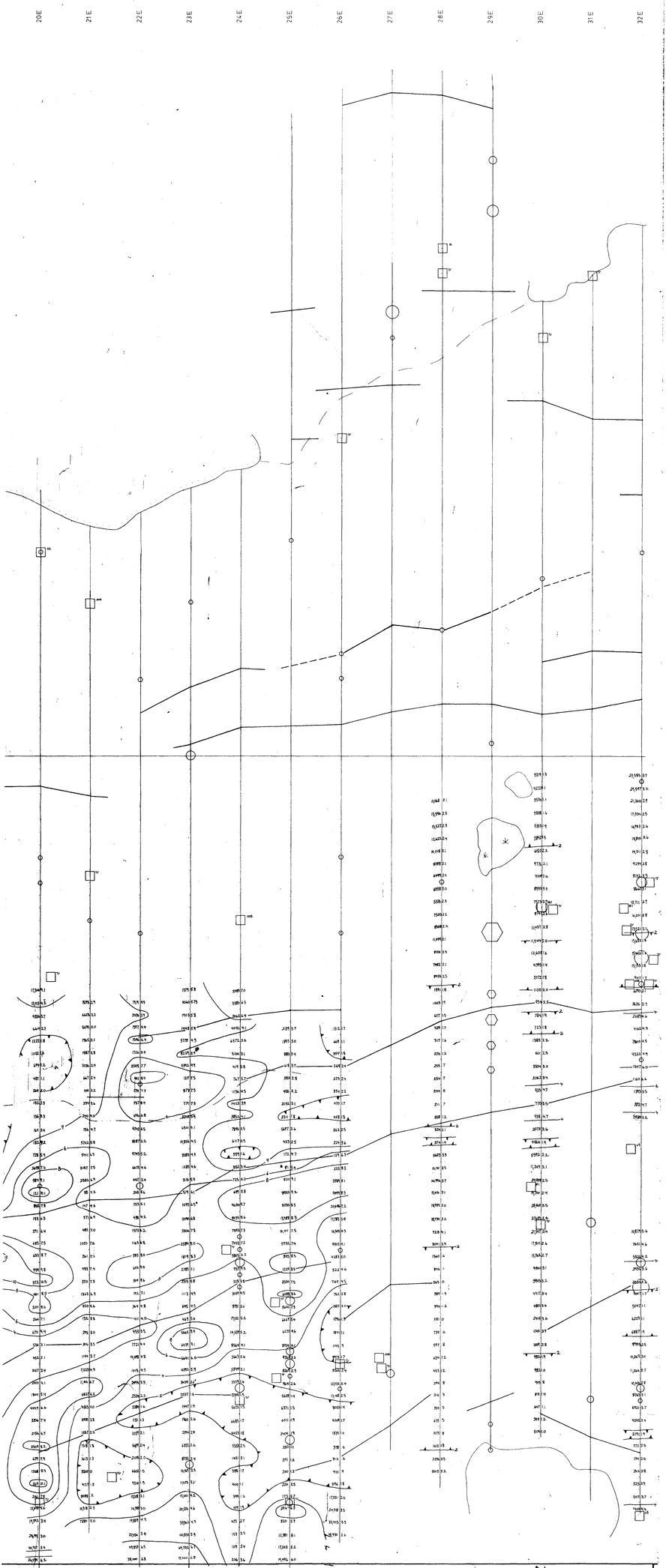
N

SPARTON RESOURCES INC.

Filtered Resistivity/Frequency Effect Plan

CENTRAL SHEET

Scale 1: 2500 | #63-4320



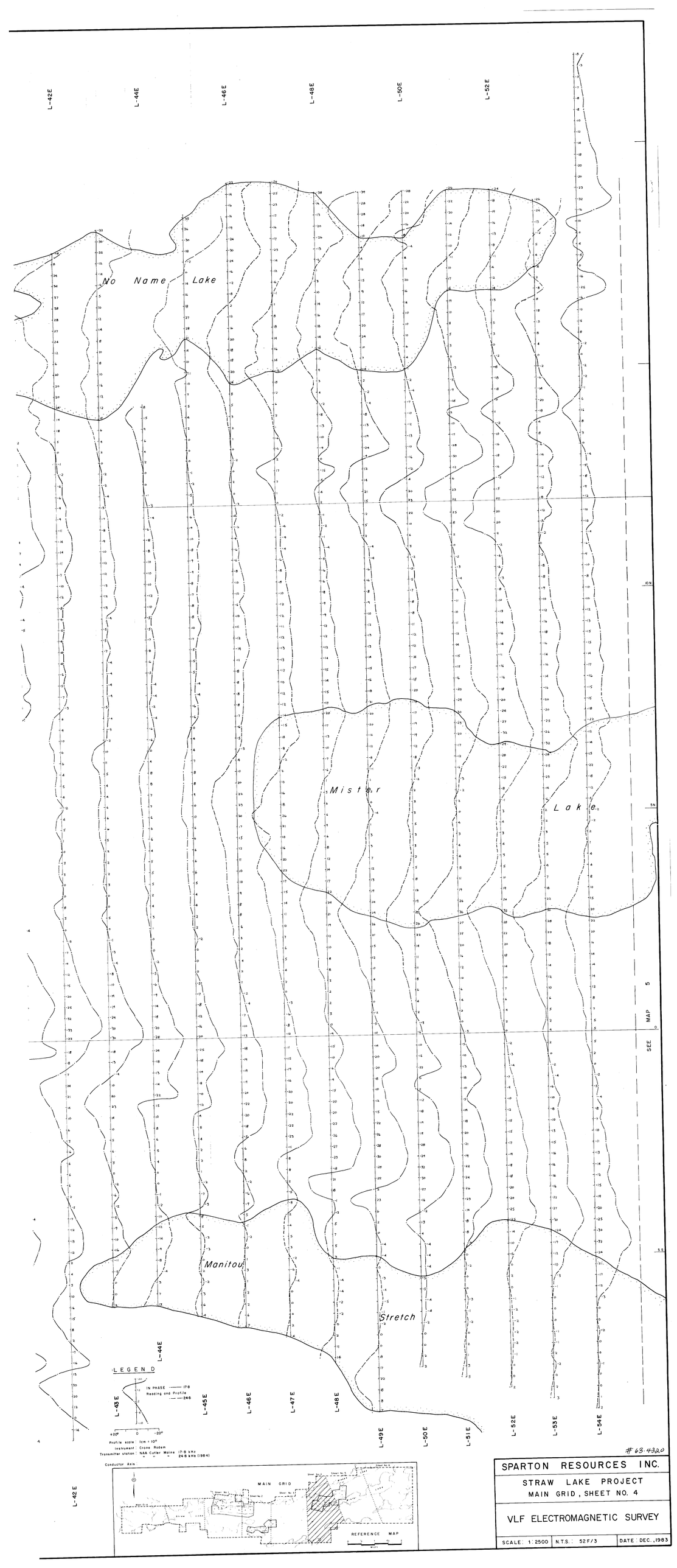
N

SPARTON RESOURCES INC.

Filtered Resistivity / Frequency Effect Plan

EAST SHEET

Scale: 1:2500 | #63-4320



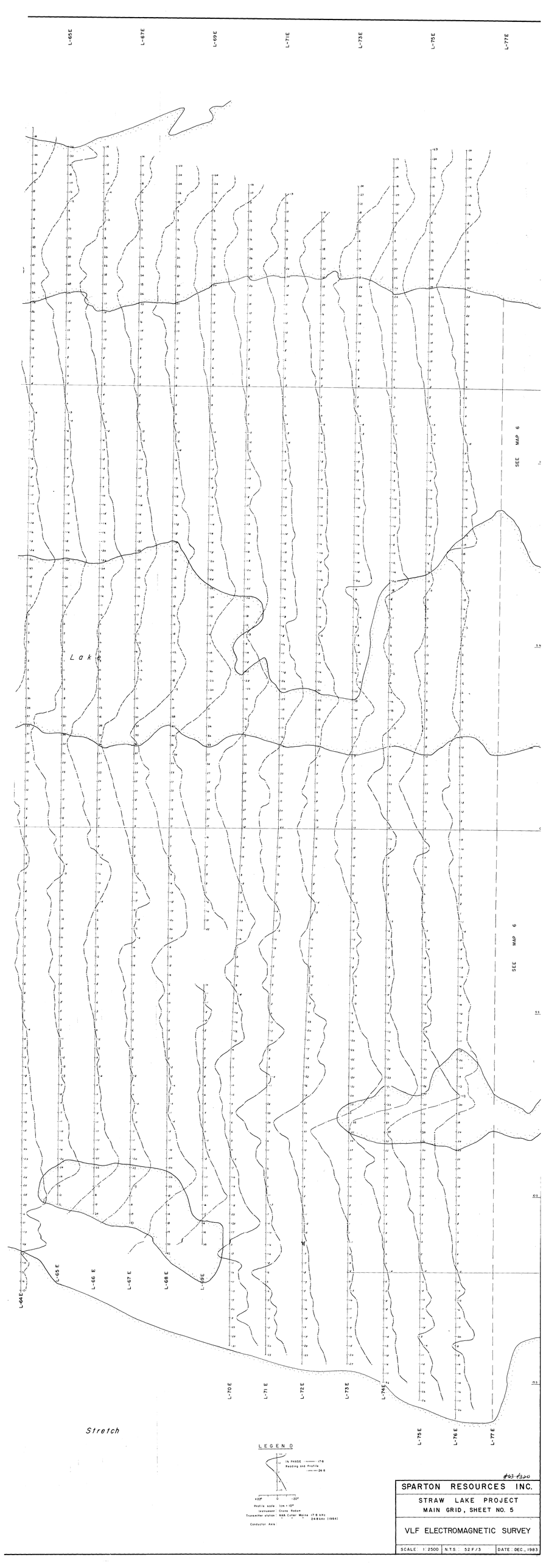
#63.4320

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
MAIN GRID, SHEET NO. 4

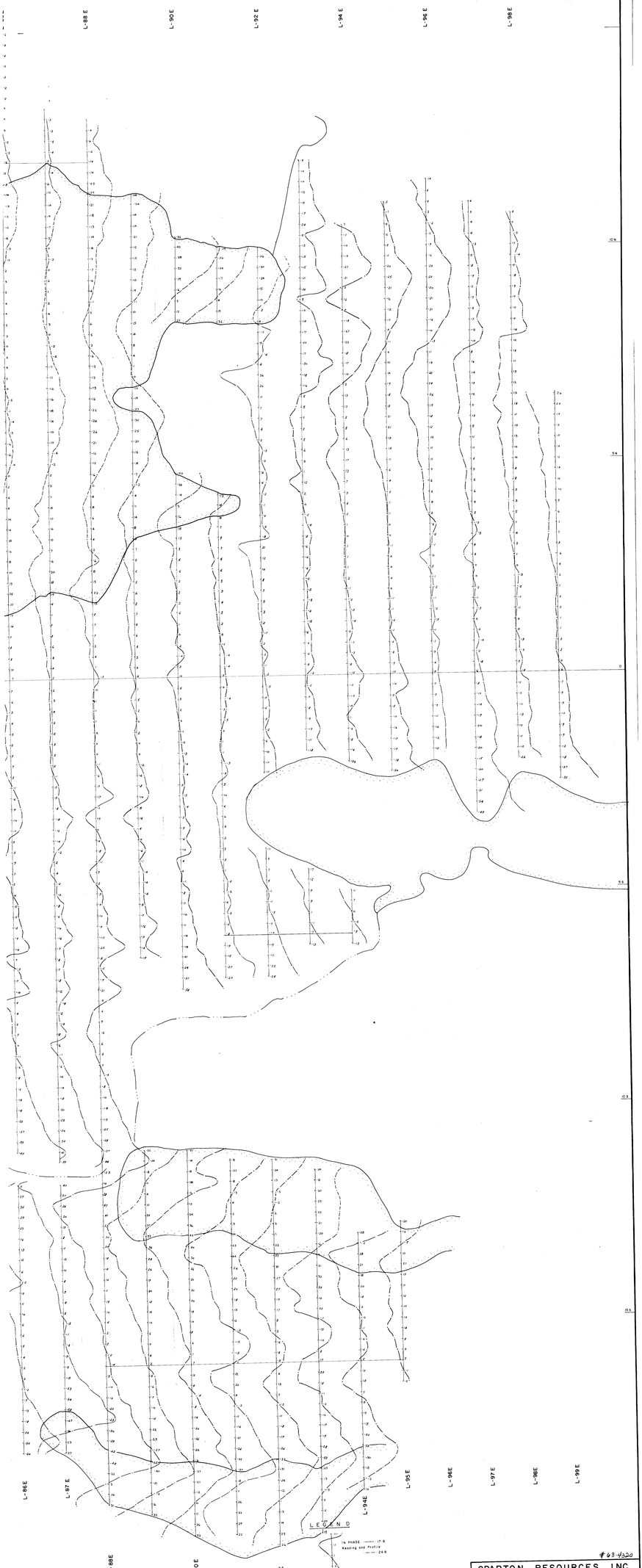
VLF ELECTROMAGNETIC SURVEY

SCALE: 1:2500 | N.T.S.: 52F/3 | DATE: DEC., 1983



#93-1320

SPARTON RESOURCES INC.		
STRAW LAKE PROJECT MAIN GRID, SHEET NO. 5		
VLF ELECTROMAGNETIC SURVEY		
SCALE 1:2500	N.T.S. 52F/3	DATE DEC., 1983



#83-320

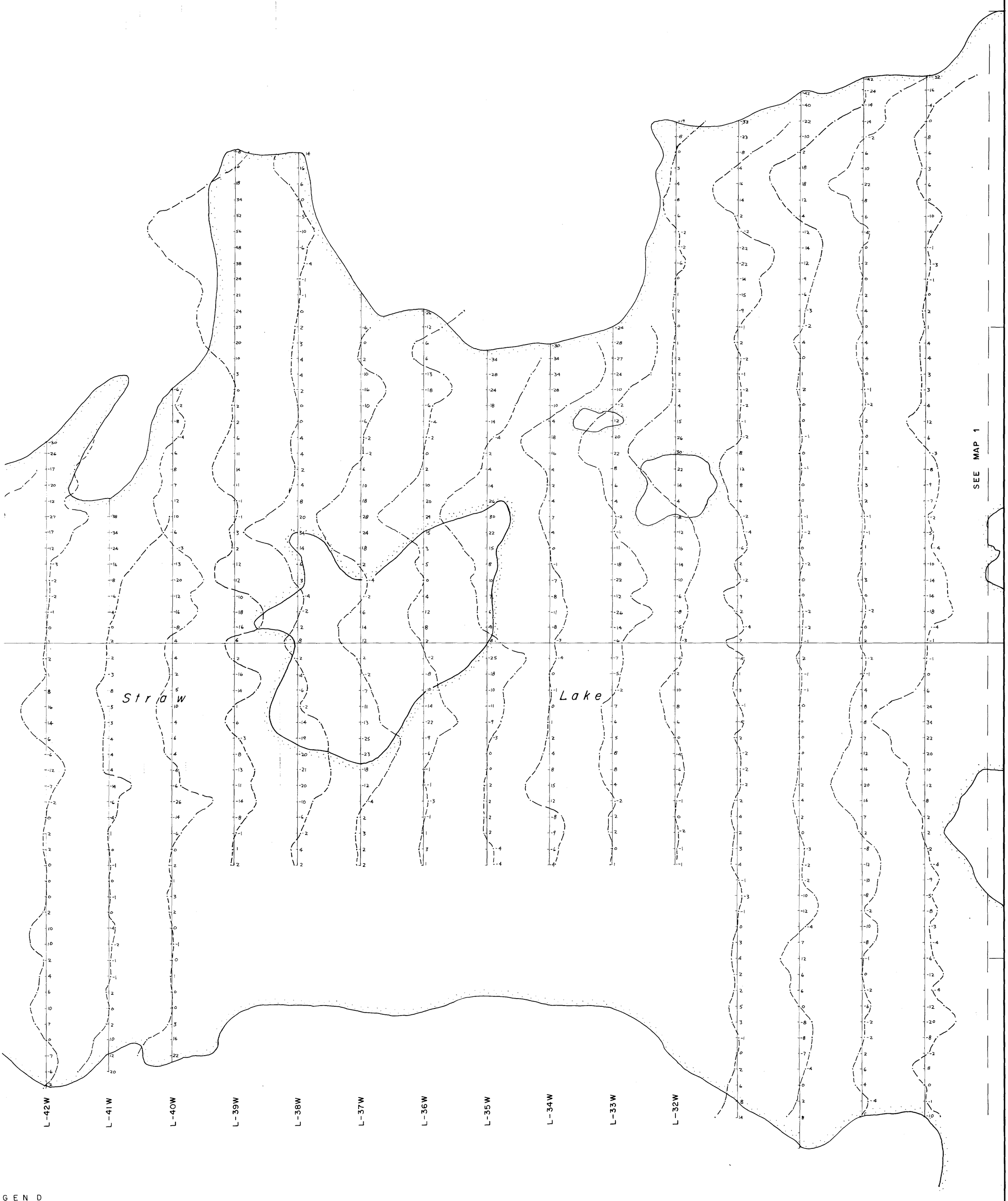
SPARTON RESOURCES INC.			
STRAW LAKE PROJECT MAIN GRID, SHEET NO. 6			
VLF ELECTROMAGNETIC SURVEY			
SCALE: 1:2500	N.T.S.	52 F/3	DATE: DEC., 1983

L-31W

L-30W

L-29W

L-28W



L-42W

L-41W

L-40W

L-39W

L-38W

L-37W

L-36W

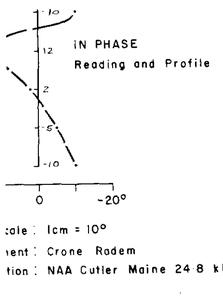
L-35W

L-34W

L-33W

L-32W

GEND



IN PHASE
Reading and Profile

cale : 1cm = 10°
ient : Crone Radem
tion : NAA Cutler Maine 24.8 kHz (1984)

Axis :

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
EAST GRID #63-4320

VLF ELECTROMAGNETIC SURVEY

SCALE: 1:2500	N.T.S. 52F/3	DATE: FEB., 1984

L-15 W
L-14 W
L-13 W
L-12W
L-11 W
L-10W
L-9 W
L-8 W
L-7 W
L-6 W
L-5 W
L-4 W
L-3 W
L-2 W
L-1 W

10 N
5 N
0
5 S

Yoke Lake
Straw Lake
Straw Lake
Straw Creek

LEGEND

IN PHASE ——— 17·8
Reading and Profile - - - 24·8

+20° 0 -20°

Profile scale : 1cm = 10°
Instrument : Crone Radem
Transmitter station : NAA Cutler Maine 17·8 kHz
" " " 24·8 kHz (1984)
Conductor Axis :

#63·4320

SPARTON RESOURCES INC.

STRAW LAKE PROJECT
WEST GRID

VLF ELECTROMAGNETIC SURVEY

SCALE : 1:2500 | N.T.S. : 52 F/3 | DATE : DEC., 1987