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REPORT

on the

HINTON PROPERTY

ALBERTA

NTS
83E 9,16
83F 11-14
83L 1-3

for

Montello Resources Ltd.
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595 Burrard Street
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by

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February 3, 1995

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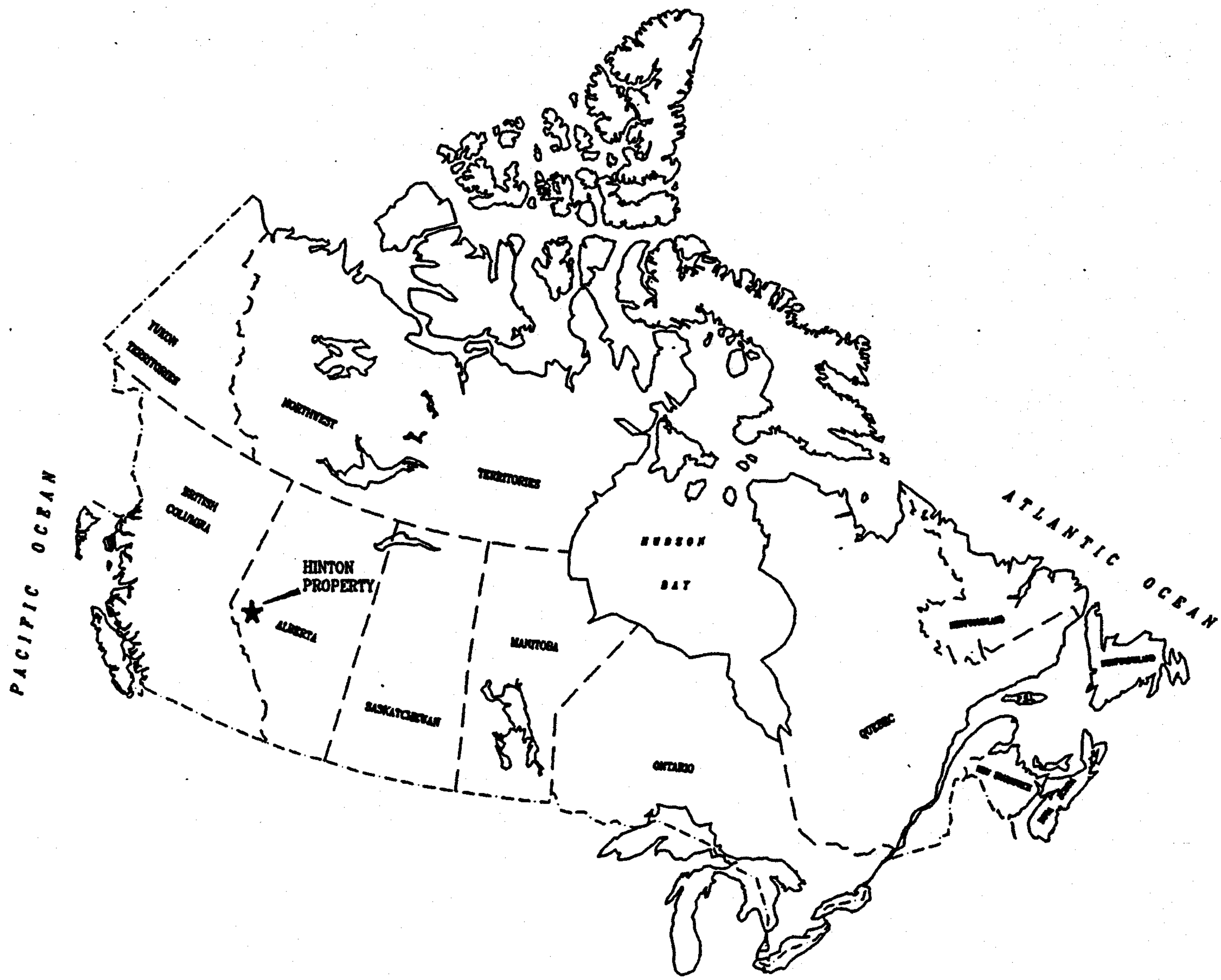
SUMMARY

The Hinton property is situated in a geological setting suitable for the occurrence of diamondiferous lamproite and kimberlite diatremes. Mineral grains indicative of lamproite or kimberlite have been recovered from stream sediments and glacial till, suggesting the presence of lamproite or kimberlite on the property. Microdiamonds have been recovered from stream sediments in a creek and they indicate a nearby source. An airborne survey has given magnetic responses which may reflect lamproite or kimberlite diatremes.

A work program is recommended, including detailed follow-up ground magnetic and electromagnetic surveys over selected airborne targets, evaluation of these geophysical anomalies by indicator mineral geochemistry, and testing of possible diamondiferous diatremes by core drilling. A $610,000 budget for the recommended work is proposed.



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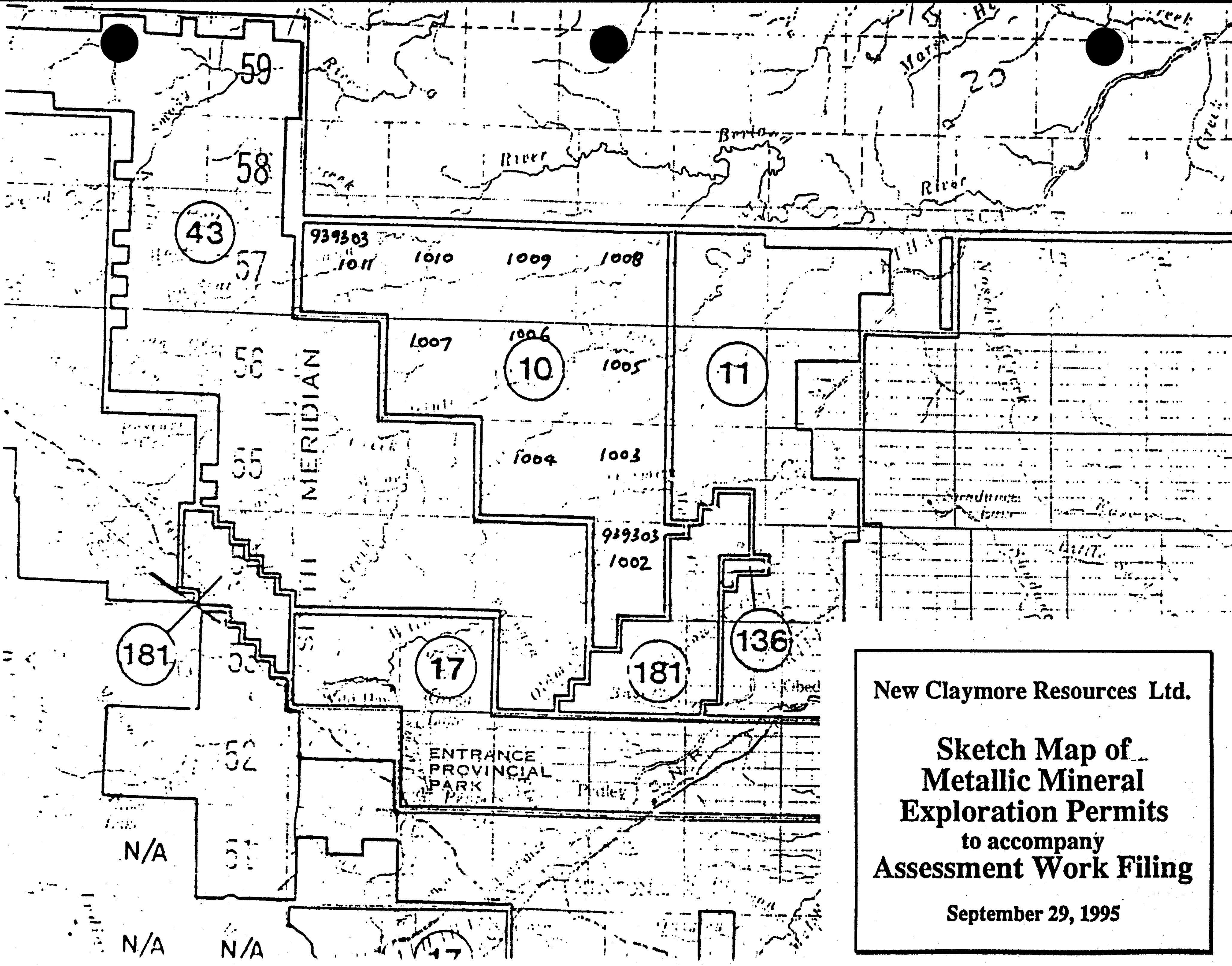
GEOSCIENTIST

DISCOVERY Consultants	
MONTELLO RESOURCES LTD.	
HINTON PROPERTY INDEX MAP	
DATE: Jan. 31/1995	SCALE: 1:25000000
PROJECT: 559	NTS : N.A.
FIGURE: 1	



New Claymore Resources Ltd.

Sketch Map of Metallic Mineral Exploration Permits
to accompany
Assessment Work Filing

September 29, 1995

INTRODUCTION

This report on the Hinton property has been prepared at the request of Mr. Patrick Power, president of Montello Resources Ltd. The writer visited the property in May of 1994 and this report is based on the results of that field investigation and a review of data reported from various sources, including Dighem Surveys and Processing Inc., Montello Resources Ltd., Loring Laboratories Ltd., C.F. Mineral Research Ltd., Lakefield Research, New Claymore Resources Ltd. and Troymin Resources Ltd.

The property is located north of Hinton, Alberta, northeast of the Rocky Mountains Foothills.

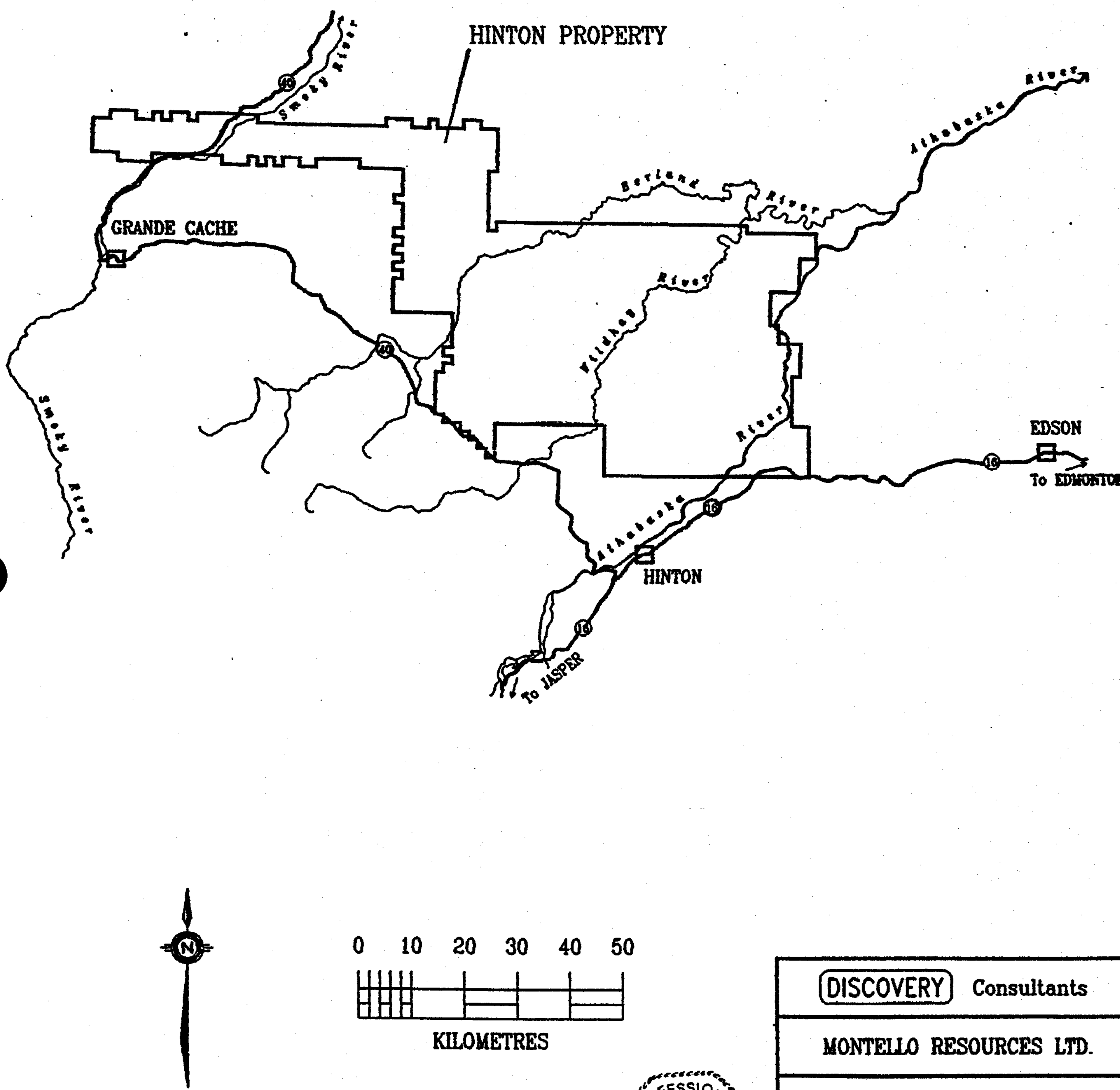
The exploration work to date includes a 21,500 line-km airborne magnetic survey and 62 heavy mineral stream sediment samples, from 51 sites, collected and processed.

This report reviews the exploration results and recommends additional exploration for diamonds.

LOCATION AND ACCESS

The Hinton property is located north of Hinton, Alberta, and extends from Obed in the southeast to the Smoky River in the northwest (NTS: 83E 9,16; 83F 11-14; 83L 1-3) (Figure 2). The most southerly boundary is at 53°34'N Latitude, most easterly at 117°05'W Longitude, most northerly at 54°09'N and most westerly at 119°10'W. The distance from the southeast corner to the northwest corner is approximately 150 kilometres.

Access to Hinton, 15 km south of the property, is provided by Highway 16 (Edmonton is 275 km to the east), Highway 40 and railroad. Other important towns in the area are Grand Cache, 115 km northwest and Edson, 75 km east. The property can be fairly well accessed by timber and energy (gas, oil, coal) roads. Seismic lines provide good all-terrain-vehicle (ATV) access, especially when the ground is frozen.



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MONTELLO RESOURCES LTD.

HINTON PROPERTY
PROPERTY LOCATION MAP

DATE: Jan. 31/1995	SCALE: AS SHOWN
PROJECT: 559	NTS : Part of 83E,F,K,L
FIGURE: 2	

GEOGRAPHY

The Hinton property is on the southern Canadian Interior Plains, except for the extreme western tip which extends into the Rocky Mountain Foothills.

The Athabasca River Valley separates the Alberta Plateau to the north from the Alberta Plain to the south. The mid-boreal forest covers the property, interspersed with bogs in local lowlands.

Elevations range from 1570 metres in the Foothills to 900 metres in the Athabasca River Valley. The topographic relief is generally low to moderate except where locally incised along river and creek valleys.

The main drainage pattern is to the northeast, perpendicular to the trend of the Rocky Mountains.

The climate during the late fall, winter and early spring is generally cold and snowy, and is not suitable for surface sampling or mapping. However, during this period the frozen ground permits good access for drill equipment.

PROPERTY

The Hinton property comprises 46 Metallic and Industrial Minerals Permits, totalling 377,093 hectares (942,733 acres), situated north of Hinton, from Obed in the southeast to the Smoky River in the northwest (Figure 2). Note that the area in hectares is approximate, as a factor of 2.5 acres per hectare (ha), instead of 2.471 acres per hectare, was used in the permit applications; there are 9,324 hectares in a township (36 sections). The property is elongated in an east-west direction; maximum 135 km distance, with the maximum north-south distance being 68 km. The vast majority of the property lies within the Edson Forest district.

The property is subject to various agreements among Montello Resources Ltd., Troymin Resources Ltd., New Claymore Resources Ltd., Rich Resource Investments Ltd. and Luscar Ltd. Montello, the operator, has the right to acquire certain interests in the property by spending specific amounts on mineral exploration and by making certain cash payments.

A listing of permit information is presented in Table 2 in Appendix A.

HISTORY

No exploration for diamonds is known to have occurred on the Hinton property prior to 1993. The following is a summary of the exploration work carried out since 1993.

1. Reconnaissance heavy mineral stream sampling for lamproite/kimberlite-indicator minerals was carried out by New Claymore in the fall of 1993; 22 samples collected, 4 processed for indicator minerals.

2. Dighem airborne magnetic survey was carried out during May to July, 1994; 21,500 line-km flown.

3. The writer spent 3 days on the property on behalf of Montello in May 1994. Work included discussions with Dighem personnel, orientation ground magnetic surveys to correlate airborne anomalies with possible cultural effects and a brief reconnaissance survey of bedrock and surficial geology.

4. Reconnaissance and follow-up heavy mineral stream sampling for lamproite/kimberlite-indicator minerals and/or microdiamonds was carried out by Montello in 1994; 64 samples collected; 45 processed.

5. Till and rock sampling was carried out by Luscar in 1994; 6 samples collected and processed for indicator minerals.

6. Follow-up heavy mineral stream sediment sampling was carried out by C.F. Mineral Research in 1994; 6 samples collected and processed.

Some of the processed samples were later sent to other labs for additional processing and analysis.

REGIONAL GEOLOGY

The Hinton property is situated in west-central Alberta on the North American Craton near its western boundary, and immediately east of the Cordillera. The craton comprises the Chinchaga and Wabamun accreted Proterozoic (1.9 to 2.4 Ga) terranes (Ross, 1991), which may contain a significant Archean component (Villeneuve et al, 1993).

A major structural feature, the Snowbird Tectonic Zone, is located south of the property.

The craton is overlain by sedimentary rocks of Paleozoic through Cenozoic age. To the southwest, Paleozoic through Tertiary rocks have been folded and thrust faulted in the Rocky Mountains and the Foothills (Price, 1977).

A sedimentary basin (Alberta Syncline) was developed to the northeast, parallel to the main fold and thrust belts, during the Upper Cretaceous and Paleocene.

PROPERTY GEOLOGY

Precambrian and Paleozoic rocks are covered by several kilometres of Cretaceous to Tertiary sedimentary rocks.

Non-marine sandstones, shales and minor conglomerate and coal of the Paleocene Paskapoo Formation cover most of the property.

To the southwest, parallel to the northwest trend of the Rocky Mountains, a band of the Brazeau Formation is exposed. These similar Upper Cretaceous rocks are older sequences of the same basin containing the Paskapoo. Published maps do not always agree on the location of the Paskapoo/Brazeau contact.

The extreme western portion of the property extends into the Foothills.

SURFICIAL GEOLOGY

Pre-glacial, late Tertiary gravels, from easterly flowing rivers, overlie the Paleocene Paskapoo Formation in places (Roed, 1975).

Mapping in an area covering the eastern portion of the property shows as many as five glacier advances with two main Cordilleran (Marlboro, Obed) and two main Laurentide (Mayberne, Edson) till sheets (Roed, 1975). In this area the Cordilleran ice-flow directions range from about 350° to 080° azimuth, with the most common range being 010° to 020° (Figure 3). Some Laurentide deposits occur up to 15 km south of a later Laurentide-Cordilleran glacier contact, shown in Figure 3, creating an overlap zone. In a general sense this contact bisects the property in a west-northwest direction.

The most common till, the Marlboro, ranges from 0.3 m thick on the upland to >30 m thick in buried valleys, and is generally about 3 m thick. The younger Obed till, averaging about 4.5 m thick, is generally restricted to a 15 km wide corridor along portions of the Athabasca River valley.

Glaciofluvial deposits mainly occur in the valleys of the Athabasca and Wildhay Rivers. The thickness of outwash sediments in the Wildhay valley is commonly 18 m. As well, older sand and gravel deposits occur between till sheets.

The surficial deposits have likely played an important role in the present day distribution of heavy minerals. On the uplands the till is generally not thick enough to significantly hinder exploration.

ECONOMIC GEOLOGY

Diamonds are formed under high pressures, but moderate temperatures, beneath the keels of stable cratons in the earth's mantle. From a depth of about 200 km the diamonds are quickly carried by a partial melt, high into the crust, usually venting to surface as a gas-rich volcanic eruption. Most mining potential occurs in the diatreme vent (pipe) and crater. The concentration of diamonds, even in an economic pipe, is very low. However, the high value of gem quality diamonds can make this low concentration profitable.

In the Slave Province in the Northwest Territories and in the Fort à la Corne area of Saskatchewan the diamondiferous rocks are classified as kimberlite, by far the most common host rock for diamonds worldwide. The Argyle mine in Australia is the only major economic diamond deposit hosted in lamproite.

A belt of kimberlites, lamproites and related rocks stretches from Arizona north to the MacKenzie Mountains (Fipke et al, 1989), following the trend of the western cordillera of North America. This geological setting, near the edge of the craton, is suitable for lamproite emplacement, which can occur either within or outside of archons (Archean portions of cratons) (Scott Smith, 1992). On the Hinton property the underlying Precambrian craton may contain rocks of Archean age.

The nearest diamond-bearing diatreme on which information has been published is the Jack Pipe (Fipke et al, 1989; Pell, 1994), 160 km south of Hinton in the Rocky Mountains of B.C.

The age of possible diamond-bearing diatremes may be significant in evaluating the potential for economic diamond pipes on the property. Rocks of about 60-65 million years age cover most of the property. If lamproitic or kimberlitic events took place at the same time as the Fort à la Corne province, 119 to 91 million years ago (Scott Smith et al, 1994), then any diatremes would be buried by about 3.5 km of subsequent sedimentation (Price, 1977). However, if the age is younger than the cover rocks at 60 million years, for example, similar to the 52 million year old Lac de Gras pipes, then although a pipe may have suffered erosion it would likely still be preserved at the bedrock surface. Kimberlite or lamproite intrusions in the Tertiary rocks, on most of the Hinton property, will not be folded or thrust faulted as may be similar-aged intrusions in the Rocky Mountains and Foothills (Price, 1977). A Tertiary event "... may well prove to be the dominant diamondiferous event on the North American continent based on early indications from the Lac de Gras area..." (Dufresne et al, 1994).

Although the Cretaceous/Tertiary sediments are easily eroded, lamproite and kimberlite may be even more recessive weathering, resulting in the covering of pipes by a greater thickness of till.

The discovery of a lamproitic or kimberlitic pipe on the Hinton property, diamondiferous or not, would be significant and further exploration would be warranted. Pipes tend to form in clusters and barren and economic pipes can often occur in close proximity. It is also possible that diamonds may occur in well-stratified crater/pyroclastic facies within the sedimentary sequence, as is the case at Fort à la Corne (Scott Smith et al, 1994), or in placer concentrations (paleoplacers), also within the sedimentary rocks, but from more distal sources. The 'Fort à la Corne' model may have economic potential, however, paleoplacers are less likely to be economic in this geological setting.

REVIEW OF AIRBORNE MAGNETOMETER SURVEY

A Dighem airborne (helicopter) magnetometer survey was carried out from May 10 to July 3, 1994, on the Hinton property for Montello by Dighem Surveys and Processing Inc. A total of 21,500 line-km was flown at 200 m line spacing. A high sensitivity (0.01 nanotesla) cesium magnetometer was used. The objective of the survey was to detect circular, pipe-like anomalies which might reflect lamproitic or kimberlitic diatremes (pipes).

The only data presently available to Montello are shown on the following maps:

1. <u>Magnetic anomalies (1:100,000)</u>: determined from profiles and classified as to strength, single or multiple line, width of anomaly and probability of culture. Also on the map are coloured magnetics with the second order trend removed (i.e., showing residual values).

2. <u>Magnetic values (1:25,000 and 1:50,000)</u>: contoured in plan at 0.5 nanotesla (nT). The data has been processed; the second order trend has been removed.

The writer has modified the Dighem classification, producing a map (Figure 3) showing 14 first, 65 second and 63 third priority targets, for a total of 142 anomalies.

Many of the third priority and some of the second may be due to cultural effects; however, it is unlikely that any gas or oil wells have been classified as anomalies.

The magnetic anomalies are in the 2 to 15 nT range, which is low when compared to magnetic responses for many kimberlites in the Northwest Territories. However, the magnetic response of lamproite or kimberlite, if present, may be quite different from Lac de Gras kimberlites. The response of lamproites can be commonly weak, in the range of 5 to 50 nT (Janse, 1992). In a kimberlite/lamproite field of 24 vents in Ellendale, Western Australia, an aeromagnetic survey flown at a height of 80 m and 250 m line spacing yielded responses ranging from <4 nT to about 13 nT above background (Smith, 1985).

The electromagnetic responses are not known for the Hinton property magnetic anomalies. However, electromagnetic surveys may prove useful in evaluating the magnetic anomalies.

The airborne anomalies need to be evaluated and delineated by ground Max Min electromagnetic and magnetic surveys. Some of the targets may be quickly eliminated due to cultural effects.

The heavy mineral stream sampling was carried out before the information on the Dighem anomalies was available. Therefore, none of the 142 anomalies have been effectively evaluated for lamproite/kimberlite indicator minerals, although there are a few targets with some down-stream sampling.

REVIEW OF MINERALOGICAL SURVEYS

The concept of a mineralogical survey is to evaluate the diamond potential within drainage catchments by sampling and processing stream sediments. If lamproite or kimberlite are present at the bedrock surface then specific minerals indicative of lamproite or kimberlite should be present in the stream sediments.

The analysis of mineral grains to distinguish between diamondiferous and barren kimberlites is well understood (Fipke et al, 1989). Classification of pyrope garnets and chromites can denote the diamond potential of the source diatremes. However, since the data base for indicator minerals for lamproite exploration is much smaller and combined with the presence of only minor pyropes in lamproites, the use of indicator minerals is not as precise. The geochemistry of P1 chromites is believed to be useful in evaluating the diamond potential of the source material (Griffen et al).

For deposits containing relatively abundant diamonds, for example the lamproitic Argyle Mine, discovery can be the result of finding diamonds in stream sediments (Janse, 1992).

Dufresne et al (1994) state: "The interpretation of data derived from modern sand and gravel deposits is extremely difficult because there may be significant contributions of indicator minerals from a variety of sources, including tills, preglacial deposits, Mesozoic to Tertiary clastic sedimentary rocks and, possibly, local diatremes."

Recent government sampling has shown a belt of chromite indicator minerals adjacent to and within the Foothills region, the "Hinton Trend" of Dufresne et al.

After a review of research literature, Dufresne et al conclude that gold and platinum group elements possibly "...may act as 'indicator minerals' for kimberlite and lamproite fields...".

Since 1993, stream sediments have been collected and processed from 51 sites on the Hinton property. Also, another 39 samples were collected but as yet have not been processed. Relevant information on the samples is presented in Table 1 and on Figures 3 and 4.

ABLE 1

HINTON PROJECT
Date: 95.01.31

HEAVY MINERAL SAMPLING
File: Geodata\559\559_HM.wk4

Sorted by Permit No.

Sample No.	Collector	Lab.	Report No.	Permit No.	Tp.	R.	Sample Type	Orig. Wt. kg	Orig. Mesh	Indicator Minerals: Chromites DI	P1/P4	Garnets P3	G3/5	G9/11	G10	Cr-diop PCP5	Diamonds	Total per 10 kg orig sample
83F 114	New Claym.	--	--	--	58	23	ss	25.0	-9+16	--	--	--	--	--	--	--	--	--
83F 121	New Claym.	--	--	--	57	21	ss	9.0	-9+16	--	--	--	--	--	--	--	--	--
PC 94 01	Luscar	Loring	36579	--	54	2	till	15.4	--				1					1
PC 94 06	Luscar	Loring	36579	9393030070	54	2	till	17.5	--						1			1
PC 94 09	Luscar	Loring	36579	9393030070	54	1	till	7.7	--									0
PC 94 12	Luscar	Loring	36579	9393030070	54	1	till	21.5	--		1	1						1
PC 94 13A BR	Luscar	Loring	36579	9393030070	53	1	rock	22.3	--									0
PC 94 13A T	Luscar	Loring	36579	9393030070	53	1	till	24.9	--									0
ZZ 09	Montello	CFM	94448	9393030070	54	1	ss	7.8	-20	1	n/c	n/c						1
ZZ 74	Montello	--	--	9393030070	54	1	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 75	Montello	--	--	9393030070	54	1	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 76	Montello	--	--	9393030070	54	1	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 01	Montello	Loring	36647	9393030652	53	25	ss	10.3	-20			1	1	1		3		6
ZZ 02	Montello	Loring	36647	9393030652	53	25	ss	8.5	-20				1			2		4
ZZ 03	Montello	Loring	36647	9393030652	53	25	ss	9.8	-20					1				1
ZZ 04	Montello	Loring	36647	9393030652	53	25	ss	8.8	-20			1		8				10
ZZ 04 Con	Montello	Loring	36647	9393030652	53	25	ss/con		-20		1	2				4		--
ZZ 08	Montello	CFM	94448	9393030652	53	25	ss	10.3	-20		n/c	n/c						0
ZZ 08 Con	Montello	CFM	94448	9393030652	53	25	ss/con	1.6	-20		n/c	n/c						--
ZZ 08A	Montello	Loring	36671	9393030652	53	25	ss	6.4	-20			1		1		5		11
ZZ 08A	Loring	Sraega	36671	9393030652	53	25	--	--	--			0	--	--	--	--	--	--
ZZ 08A Con	Loring	Sraega	36671	9393030652	53	25	--	--	--			2	--	--	--	--	--	--
ZZ 08A Con	Montello	Loring	36671	9393030652	53	25	ss/con	0.0	-20			1						--
ZZ 10	Montello	Loring	36671	9393030652	53	25	ss	9.8	-20		1	1						2
ZZ 12	Montello	Loring	36671	9393030652	53	25	ss	10.7	-20			1						1
ZZ 01 - 08	Loring	Lakefield	9447590	652/653			con	4.7		--	--	--	--	--	--	--	0	--
XE 3011	CFM	CFM	94503	9393030653	54	25	ss	66.2	-6	--	--	--	--	--	--	--	0	--
ZZ 05	Montello	CFM	94448	9393030653	54	25	ss	8.2	-20		n/c	n/c		1				1
ZZ 06	Montello	CFM	94448	9393030653	54	25	ss	9.1	-20		n/c	n/c						0
ZZ 06 Con	Montello	CFM	94448	9393030653	54	25	ss/con	0.3	-20		n/c	n/c						--
ZZ 07	Montello	CFM	94448	9393030653	54	25	ss	9.2	-20	5	n/c	n/c						5
ZZ 07 Con	Montello	CFM	94448	9393030653	54	25	ss/con	0.0	-20	3								--
ZZ 11	Montello	Loring	36671	9393030653	54	25	ss	8.8	-20		1							1
ZZ 16	Montello	Loring	36671	9393030654	54	26	ss	9.6	-20			1				1		2
ZZ 20	Montello	Loring	36713	9393030655	54	27	ss	7.8	-20	1		1			1			4
XE 3137	CFM	CFM	94503	9393030656	54	1	ss	11.0	-20	7	n/c	n/c						6
ZZ 21	Montello	Loring	36713	9393030656	54	1	ss	7.3	-20									0
ZZ 72	Montello	--	--	9393030661	56	1	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 73	Montello	--	--	9393030663	57	1	ss		-20	--	--	--	--	--	--	--	--	--
83F 102	New Claym.	--	--	9393031002	54	24	ss	22.0	-9+16	--	--	--	--	--	--	--	--	--

HINTON PROJECT | HEAVY MINERAL SAMPLING
Date: 95.01.31 | File: Geodata\559\559_HM.wk4 | Sorted by Permit No.

Sample No.	Collector	Lab.	Report No.	Permit No.	Tp.	R.	Sample Type	Orig. Wt. kg	Orig. Mesh	Indicator Minerals Chromites DI	P1/P4	Garnets P3	G3/5	G9/11	G10	Cr-diop PCP5	Diamonds	Total per 10 kg orig sample
83F 103	New Claym.	--	--	9393031003	55	24	ss	25.0	-9+16	--	--	--	--	--	--	--	--	--
83F 109	New Claym.	--	--	9393031004	55	25	ss	8.0	-9+16	--	--	--	--	--	--	--	--	--
83F 110	New Claym.	--	--	9393031004	55	25	ss	18.0	-9+16	--	--	--	--	--	--	--	--	--
83F 118	New Claym.	--	--	9393031004	55	25	ss	28.0	-9+16	--	--	--	--	--	--	--	--	--
ZZ 19	Montello	Loring	36713	9393031004	55	25	ss	9.8	-20									0
ZZ 19A	Montello	--	--	9393031004	55	25	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 24	Montello	Loring	36713	9393031004	55	25	ss	9.4	-20	--	--	--	--	--	--	--	--	--
83F 116	New Claym.	--	--	9393031005	56	24	ss	27.0	-9+16	--	--	--	--	--	--	--	--	--
83F 117	New Claym.	--	--	9393031005	56	24	ss	23.0	-9+16	--	--	--	--	--	--	--	--	--
83F 111	New Claym.	Loring	36248	9393031006	56	25	ss	11.5	-9+16		n/c	n/c						0
BB J1	Montello	Loring	36758	9393031006	56	25	ss	210.3	-20			3						0
BB J1	Loring	Lakefield	9447590	9393031006	56	25	con	11.2		--	--	--	--	--	--	--	0	--
BB J1 Con	Montello	Loring	36758	9393031006	56	25	ss/con	4.9	-20		1							--
BB J2	Montello	Loring	36758	9393031006	56	25	ss	1515.3	-20	1	3	9	1	17			2	0
BB J2	Loring	Lakefield	9447590	9393031006	56	25	con	177.4		--	--	--	--	--	--	--	0	--
BB J3	Montello	Loring	36758	9393031006	56	25	ss	262.6	-20	1	5		2	5				0
BB J3	Loring	Lakefield	9447590	9393031006	56	25	con	27.5		--	--	--	--	--	--	--	2	--
JH 69		M.T.U.		9393031006	56	25	ss	6.6	-20	--	--	--	--	--	--	--	10	15
XE 3126	CFM	CFM	94476	9393031006	56	25	ss	16.1	-20	1	n/c	n/c					4	3
XE 3127	CFM	CFM	94476	9393031006	56	25	ss	14.7	-20		n/c	n/c						0
XE 3128	CFM	CFM	94476	9393031006	56	25	ss	63.4	-6	2	n/c	n/c					2	1
XE 3129	CFM	CFM	94476	9393031006	56	25	ss	65.3	-6		n/c	n/c						0
ZZ 13	Montello	Loring	36671	9393031006	56	25	ss	7.6	-20									0
ZZ 13 Con	Montello	Loring	36671	9393031006	56	25	ss/con		-20			1						--
ZZ 14	Montello	Loring	36671	9393031006	56	25	ss	11.8	-20									0
ZZ 15	Montello	Loring	36671	9393031006	56	25	ss	8.8	-20								1	1
ZZ 15	Loring	CFM	94473	9393031006	56	25	ss	8.8	-20	8	n/c	n/c						9
ZZ 22	Montello	Loring	36713	9393031006	56	25	ss	10.7	-20	--	--	--	--	--	--	--	--	--
ZZ 23	Montello	Loring	36713	9393031006	56	25	ss	9.7	-20			1						1
ZZ 26	Montello	Loring	36736	9393031006	56	25	ss	61.9	-20					2				0
ZZ 27	Montello	Loring	36736	9393031006	56	25	ss	14.9	-20									0
ZZ 28	Montello	Loring	36736	9393031006	56	25	ss	48.8	-20		1	1	1			1		1
ZZ 29	Montello	Loring	36736	9393031006	56	25	ss	41.0	-20					1				0
ZZ 30	Montello	Loring	36736	9393031006	56	25	ss	40.8	-20		1	1	1					1
ZZ 31	Montello	Loring	36736	9393031006	56	25	ss	10.6	-20			1		1				2
ZZ 32	Montello	Loring	36736	9393031006	56	25	ss	28.4	-20					1				0
ZZ 33	Montello	Loring	36736	9393031006	56	25	ss	38.4	-20			1	1	3				1
ZZ 14, 30 - 33	Loring	Lakefield	9447590	9393031006	56	25	con	12.1		--	--	--	--	--	--	--	0	--
ZZ 34	Montello	Loring	36736	9393031006	56	25	ss	10.3	-20									0
ZZ 40	Montello	Loring	36736	9393031006	56	25	ss	116.0	-20				2	1				0

HINTON PROJECT
Date: 95.01.31

HEAVY MINERAL SAMPLING
File: Geodata\559\559_HM.wk4

Sorted by Permit No.

Sample No.	Collector	Lab.	Report No.	Permit No.	Tp.	R.	Sample Type	Orig. Wt. kg	Orig. Mesh	Indicator Minerals Chromites DI	P1/P4	P3	Garnets G3/5	G9/11	G10	Cr-diop PCP5	Diamonds	Total per 10 kg orig sample
ZZ 41	Montello	Loring	36736	9393031006	56	25	ss	44.9	-20		1		1	1				1
ZZ 42	Montello	Loring	36736	9393031006	56	25	ss	44.0	-20		2	1		1				1
ZZ 43	Montello	Loring	36736	9393031006	56	25	ss	18.0	-20					2				1
ZZ 50	Montello	Loring	36758	9393031006	56	25	ss	25.7	-20	1				1				1
ZZ 64	Montello	--	--	9393031006	56	25	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 65	Montello	--	--	9393031006	56	25	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 66	Montello	--	--	9393031006	56	25	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 67	Montello	--	--	9393031006	56	25	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 68	Montello	--	--	9393031006	56	25	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 69	Montello	--	--	9393031006	56	25	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 70	Montello	--	--	9393031006	56	25	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 71	Montello	--	--	9393031006	56	25	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 77	Montello	--	--	9393031006	56	25	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 78	Montello	Lakefield	9448406	9393031006	56	25	ss	8.2	-20	--	--	--	--	--	--	--	0	--
ZZ 79	Montello	Lakefield	9448406	9393031006	56	25	ss	6.9	-20	--	--	--	--	--	--	--	0	--
ZZ 80	Montello	Lakefield	9448406	9393031006	56	25	ss	8.5	-20	--	--	--	--	--	--	--	1	--
ZZ 81	Montello	Lakefield	9448406	9393031006	56	25	ss	8.6	-20	--	--	--	--	--	--	--	0	--
ZZ 17	Montello	Loring	36671	9393031007	56	26	ss	9.1	-20									0
ZZ 17 Con	Montello	Loring	36671	9393031007	56	26	ss/con	2.7	-20		1			1				--
ZZ 63	Montello	--	--	9393031008	57	24	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 62	Montello	--	--	9393031009	57	25	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 25	Montello	Loring	36713	9393031012	53	22	ss	8.9	-20	--	--	--	--	--	--	--	--	--
83F 104	New Claym.	--	--	9393031013	53	23	ss	27.0	-9+16	--	--	--	--	--	--	--	--	--
83F 105	New Claym.	--	--	9393031013	54	23	ss	27.0	-9+16	--	--	--	--	--	--	--	--	--
ZZ 18	Montello	Loring	36713	9393031013	55	25	ss	8.3	-20							1		1
83F 106	New Claym.	--	--	9393031014	54	22	ss	25.0	-9+16	--	--	--	--	--	--	--	--	--
83F 107	New Claym.	--	--	9393031014	54	22	ss	20.0	-9+16	--	--	--	--	--	--	--	--	--
83F 108	New Claym.	--	--	9393031014	54	22	ss	20.0	-9+16	--	--	--	--	--	--	--	--	--
83F 101	New Claym.	Loring	36248	9393031015	55	23	ss	8.2	-9+16		n/c	n/c						0
83F 119	New Claym.	--	--	9393031015	54	23	ss	24.0	-9+16	--	--	--	--	--	--	--	--	--
83F 120	New Claym.	--	--	9393031016	55	22	ss	19.0	-9+16	--	--	--	--	--	--	--	--	--
83F 112	New Claym.	--	--	9393031018	56	23	ss	23.0	-9+16	--	--	--	--	--	--	--	--	--
83F 115	New Claym.	--	--	9393031018	56	23	ss	28.0	-9+16	--	--	--	--	--	--	--	--	--
83F 113	New Claym.	Loring	36248	9393031020	57	22	ss	13.0	-9+16		n/c	n/c		2				2
ZZ 60	Montello	--	--	9393031020	57	22	ss		-20	--	--	--	--	--	--	--	--	--
ZZ 61	Montello	--	--	9393031020	57	22	ss		-20	--	--	--	--	--	--	--	--	--
RTW 1	New Claym.	Loring	36248	9393031021	27	23	ss	22.8	-9+16		n/c	n/c						0
							Totals			31	19	31	12	51	2	17	22	

NOTES

1. Collector: company collecting sample or lab processing concentrate and forwarding it to another lab for addition work

1. Lab:

Loring:	Loring Laboratories Ltd.
CFM:	C.F. Mineral Research Ltd
Lakefield:	Lakefield Research
M.T.U.:	Michigan Technological University

3. Sample type:

ss	stream sediment
ss/con	concentrate: hand panning or sluice box in field
con	concentrate: prepared in lab

4. Indicator Minerals:

n/c = not classified
-- = not processed/analysed

Chromite

DI	diamond-inclusion chromite
P1/P4	xenocryst chromites

Garnet

G3, G5	eclogitic
G9, G10, G11	peridotitic

Chrome Diopside

PCP5	peridotitic

5. Diamonds: 'microdiamonds'

6. Total: total indicator minerals and diamonds

The following brief description of sample collection and treatment methodology is based on written reports by A. Rich, Loring Laboratories Ltd., C.F. Mineral Research Ltd., Lakefield Research and D. Sraega (see BIBLIOGRAPHY) and on conversations with Montello personnel. The writer has not observed or supervised any of the field collection or laboratory procedures for these samples.

Various collection and screening methods were used to wet sieve the sediments in the field. Also, various size fractions were collected.

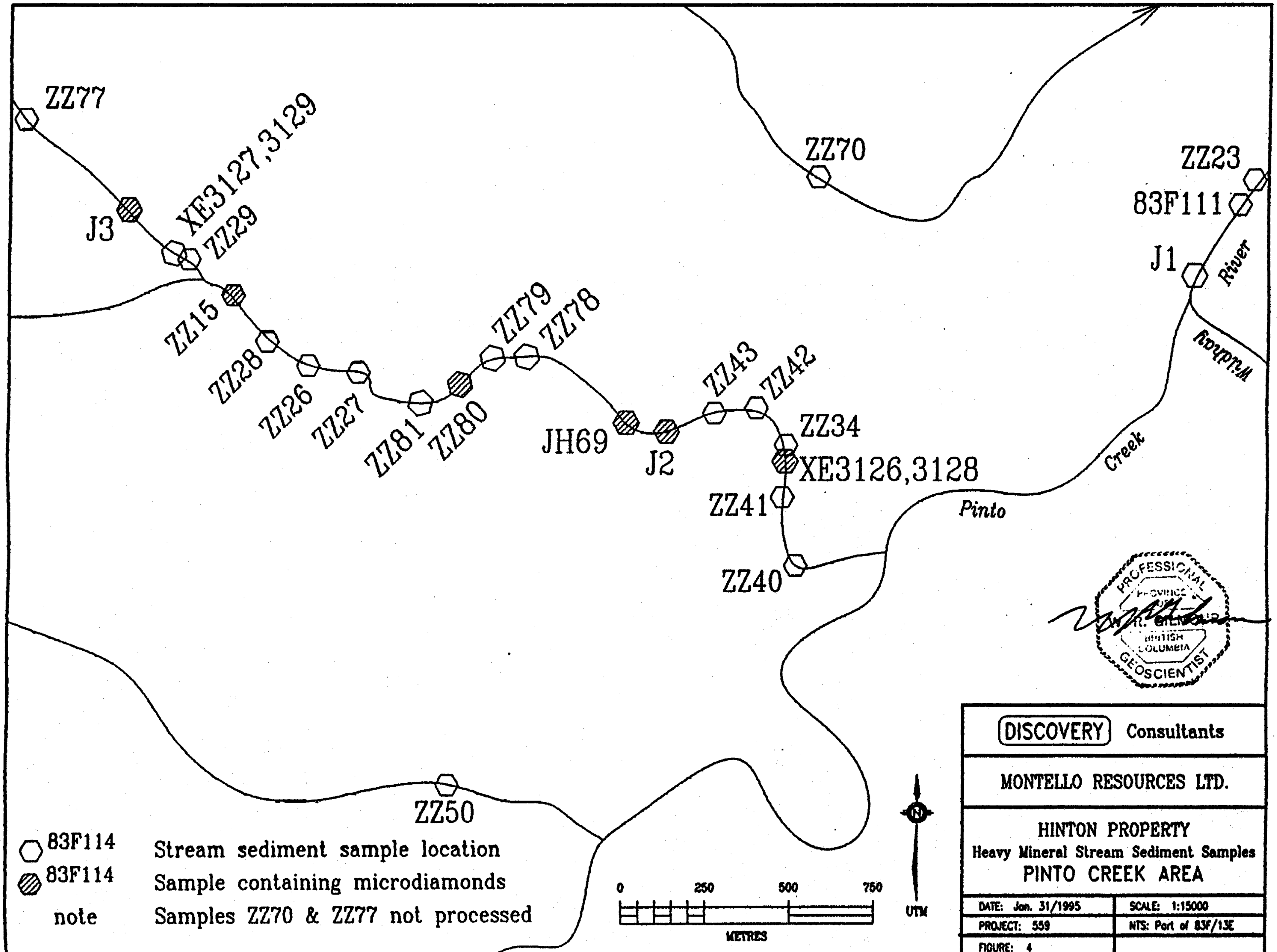
The samples were processed by Loring Laboratories, Calgary, or C.F. Mineral Research (CFM), Kelowna, to produce various heavy mineral concentrates.

Loring used a combination of a shaker table and heavy liquids to produce a mineral concentrate while CFM used only heavy liquids. After magnetic separation, certain mineral fractions were examined under an optical binocular microscope for possible chromites, eclogitic and pyrope garnets, ilmenites, chromium diopsides and diamonds. Semi-quantitative microprobe analysis of possible indicator minerals was done by Ixion Research, Montreal, for Loring and scanning electron microscope (S.E.M.) analysis was done by CFM. The writer has reclassified some of the Loring G3 and G5 garnets and chrome diopsides to include only those which are likely eclogitic or peridotitic, respectively. Some samples were treated by caustic dissolution, by Lakefield and CFM, for diamond recovery.

The results of the reconnaissance program show several significant features:

1. The discovery of a diamond in a reconnaissance sample (ZZ 15) from a tributary creek of Pinto Creek, led Montello to carry out follow-up sampling along the creek as well as other small creeks in the area (Figures 3,4).

   Most of the samples were collected over a 3 km length of creek with an elevation drop of about 50 m. There are some swampy sections in the middle of this low gradient section of the creek. Microdiamonds have been recovered from 6 separate locations over 2.5 km (Figure 4, Table 1). The number of diamonds in some samples is significant. For example, sample XE 3126, collected by Mr. Charles Fipke of CFM, yielded 4 microdiamonds from a 16 kg -20 mesh field sample. Peridotitic pyrope garnets and P-type chromites have been recovered from 8 sites and diamond-inclusion chromites from 3 sites.



ZZ77
XE3127,3129
J3
ZZ29
ZZ15
ZZ28
ZZ26
ZZ27
ZZ81
ZZ80
ZZ79
ZZ78
JH69
J2
ZZ43
ZZ42
ZZ34
XE3126,3128
ZZ41
ZZ40
ZZ70
ZZ23
83F111
J1
River
Widdavy
Creek
Pinto
ZZ50
83F114 Stream sediment sample location
83F114 Sample containing microdiamonds
note Samples ZZ70 & ZZ77 not processed
0 250 500 750
METRES
UTM
N
PROFESSIONAL
PROVINCE
BRITISH COLUMBIA
GEOSCIENTIST
DISCOVERY Consultants
MONTELLO RESOURCES LTD.
HINTON PROPERTY
Heavy Mineral Stream Sediment Samples
PINTO CREEK AREA
DATE: Jan. 31/1995
SCALE: 1:15000
PROJECT: 559
NTS: Part of 83F/13E
FIGURE: 4

Sampling on the adjoining creek to the south has returned indicator minerals but no microdiamonds.

The diamondiferous creek is outside but immediately adjacent to an area of published mapping (Roed, 1969) and landforms can be used to extrapolate the surficial geology into unmapped areas. A topographic bench is interpreted as comprising Quaternary glaciofluvial outwash sand and gravel. However, some diamond-bearing samples (e.g., ZZ 15) are up to 1 km upstream from the influence of these Wildhay valley glaciofluvial deposits. Therefore, although the glaciofluvial sediments may also contain some diamonds, the diamondiferous samples collected by CFM (XE 3126, 3128) do appear to confirm the upstream Montello samples. A report by Mr. C. Fipke of CFM concludes that "... either a diamond bearing lamproite or kimberlite pipe or a diamondiferous sedimentary horizon to be present between the original site [XE 3126, 3128] and the site two kilometres upstream..." (report by C. Fipke in Montello news release dated January 24, 1995). Diamonds may occur in rocks, as described above in ECONOMIC GEOLOGY, or in glacial till and glaciofluvial sediments.

Gold grains were reported from some of the diamondiferous samples. For example, sample XE 3128 yielded 22 gold grains.

The sample weights of some of the Montello samples were notably large. For example, sample J2 totalled more than 1500 kg of -20 mesh sediments. From this sample Loring extracted 2 microdiamonds, 2 diamond-inclusion chromites, 12 P1/P3/P4 chromites and 17 peridotitic pyrope garnets. Normalized to a 10 kg field sample, these samples are not anomalous in indicator minerals (Table 1). In contrast, the two diamondiferous samples collected and processed by CFM returned 6 microdiamonds from 80 kg of -20 and -6 mesh material. This significant difference cannot be fully explained at present. It may accurately reflect the local differences in concentration, due to either hydraulic effects within the creek or proximity to a source, or be due to differences in sample collection, processing and analysis. It is necessary to understand the different methods used in order to be able to compare results among labs. For example, in sample ZZ 15 Loring examined the +80 mesh fraction and recovered no diamond-inclusion (DI) chromites, while CFM recovered one DI chromite from the +80 mesh fraction and 7 DI chromites from the -80 mesh fraction.

This area is near a major Pleistocene glacier boundary between the Cordilleran and Laurentide ice sheets (Figure 3). Field evidence should be sought to determine the source of till clasts, and ice flow directions, which are likely either northerly (Cordilleran) or southerly (Laurentide). Exploration in the Northwest Territories has shown that glaciers can easily transport indicator minerals over tens of kilometres from their source.

There is no airborne geophysical anomaly immediately upstream or up-ice in this locale. However, pipes can occur without a recognizable aeromagnetic response.

2. Sample site ZZ 07, on a tributary of the Oldman Creek (Tp.54 R.25), yielded 8 diamond-inclusion chromites, which is an anomalous number of diamond-indicator grains. To the south, the headwaters of this tributary are adjacent to an area drained by samples ZZ 01, 02, 04 and 08A (Tp.53 R.25) which yielded anomalous numbers of peridotitic chrome diopside or pyrope garnet grains. Although the chrome diopsides and the non-G10 pyropes, by themselves, are not a priority target, and even though no airborne magnetic anomalies were identified or microdiamonds found, the presence of diamond-inclusion chromites increases the potential of this area. As the sample location is adjacent to a road, resampling further upstream may be necessary to confirm the results as being significant.

3. A sample (ZZ 20) on Pinto Creek (Tp.54 R.27) yielded a sub-calcic (1.7% CaO) G10 garnet and a diamond-inclusion chromite. Generally more than two anomalous grains would be necessary to warrant priority follow-up. However, the geochemistry of the indicator minerals supports a diamondiferous source.

4. Luscar collected 5 till and one rock sample from a track-mounted rotary drill program for coal exploration. The till yielded chromites and garnets, including a P1 chromite and G10 pyrope, that are indicative of diamond-bearing kimberlite or lamproite.

CONCLUSIONS

1. The Hinton property is in a geological setting suitable for the discovery of diamondiferous lamproite, and to a lesser extent, kimberlite. The main favourable factors are the presence of:
   a) a Precambrian craton, possibly containing a significant Archean component,
   b) evidence of major deep-seated regional faults, which could act as loci for intrusions of lamproite or kimberlite diatremes, and
   c) a diamond-bearing diatreme 175 km to the south.

2. The most likely types of potentially economic diamond deposits are:
   a) lamproite vents,
   b) kimberlite vents, and
   c) pyroclastic kimberlite (or lamproite) in craters with no significant diatreme zones (Fort à la Corne model); possibly reworking of pyroclastic deposits.

3. On the area of the property east of the Foothills, diamondiferous diatremes must be younger than about 60 million years in order to occur at the bedrock surface and therefore be discoverable and potentially economic. This preferred age fits well with the age of the Lac de Gras diamond deposits, the most prospective found to date in North America.

4. Any lamproite or kimberlite intrusion located east of the Foothills will not be folded or thrust faulted.

5. Both Cordilleran and Laurentide glaciation occurred on the property, with about a 15 km zone of overlap. The Laurentide ice-flow directions are generally south, while the Cordilleran directions range from north through to east.

6. Mineral grains, dominantly chromite, from diamondiferous lamproite or kimberlite (diamond-indicator minerals) have been recovered from surficial sediments in various locations on the property.

7. Regionally these indicator minerals appear to be part of the 'Hinton Trend' of chromite indicator minerals.

8. In some samples these diamond-indicator minerals occur in anomalous amounts. Anomalies may be the result of significant bedrock concentrations within drainage catchments.

9. Microdiamonds have been recovered from a tributary of Pinto Creek, over a creek length of 2.5 km. The number of diamonds in some samples indicates a local source.

10. The local sources of lamproite/kimberlite indicator minerals and diamonds could be either diamondiferous diatremes, Tertiary clastic sedimentary rocks (crater/pyroclastic or paleoplacer), pre-glacial gravel deposits, or glacial till and fluvial deposits.

11. Care should be taken in interpreting mineral indicator results from various labs due in part to differences in sample collection, processing and analytical techniques.

12. An airborne geophysical survey has yielded magnetic responses which may correspond to diatremes.

13. The relative abundance of mantle-derived chromites over garnets, plus the occurrence of anomalous amounts of microdiamonds, indicate that if a diatreme is present it may be an Argyle-type lamproite.

RECOMMENDATIONS

It is recommended that:

1. Upon receipt of the final Dighem aeromagnetic survey, a review of the results should take place.

2. After the geophysical review, certain airborne targets should be selected for follow-up exploration by detailed ground magnetic and Max Min electromagnetic surveys.

3. Suitable geophysical anomalies should be followed up by detailed stream sediment, till and rock sampling.

4. From these samples a heavy mineral concentrate should be produced by heavy liquids and magnetic separation.

5. The resulting concentrate should be examined for lamproitic and kimberlitic indicator minerals, and possible grains analysed by quantitative electron microprobe.

6. The exploration program should utilize the geochemistry of indicator minerals to set priorities as to which targets have the best chance of being diamond-bearing. That is, emphasis should be placed on minerals which are indicative of diamondiferous, not barren, sources.

7. Mapping of surficial deposits, including ice-flow directions, should be carried out during the heavy mineral sampling.

8. Follow-up sampling, mapping and prospecting should be carried out in the four areas (see REVIEW OF MINERALOGICAL SURVEYS) already yielding diamonds or diamond-indicator minerals.

9. Exploration priority should be given to determining the source of the microdiamonds and diamond-indicator minerals discovered in a tributary of Pinto Creek.

10. The results of both the geophysical and mineralogical surveys should be evaluated together to determine drill targets.

11. The first phase of a recommended drill program should comprise core diamond drilling of selected targets to test for the presence of lamproite or kimberlite.

PROFESSIONAL
PROVINCE
W. R. GILMOUR
BRITISH COLUMBIA
GEOSCIENTIST

Respectfully submitted,

William R. Gilmour, P.Geo.
February 3, 1995

PROPOSED BUDGET

Phase I

1.	Review of Dighem report	$ 3,000
2.	Reconnaissance evaluation of 142 airborne geophysical targets to eliminate cultural anomalies	27,000
3.	Detailed ground magnetic and electromagnetic surveys over selected airborne anomalies assume 40 targets @ $4000/target	160,000
4.	Follow-up heavy mineral sampling of selected ground geophysical anomalies and mineralogical anomalies assume 20 targets @ $10,000/target	200,000
		$ 390,000

Phase II

1.	Core diamond drill program 15 holes @ 100 m/hole 1500 m @ $100/m	150,000
2.	Recovery of diamonds and kimberlite indicator minerals from drill core; microprobe analysis of indicator minerals; interpretation of results. Note that this budget item is contingent upon the discovery of kimberlite in the drill program	50,000
3.	Geological planning, supervision, interpretation and reporting	20,000
		$220,000
	Total	$610,000

PROFESSIONAL
PROVINCE OF
W. R. GILMOUR
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GEOSCIENTIST

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February 3, 1995

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APPENDIX A

TABLE 2

HINTON PROPERTY - PERMIT DATA

Permit No.	Permit Holder	Rge.	Twp.	Sections	Area (ha) (1 ha=2.5 ac.)
9393030068	Luscar	23	53	19-20,29-32	8960
	Luscar	23	54	5-8,17-20,27-34	
	Luscar	23	55	2-4,10-11	
	Luscar	24	53	33-E,34-36	
	Luscar	24	54	1,12-13,24,25-E	
9393030069	Luscar	23	53	6-8,17-18	9216
	Luscar	24	53	1-28,33-W	
	Luscar	25	53	1,2-E,12	
9393030070	Luscar	01	53	13,23-27,33-36	9216
	Luscar	01	54	1-11,15-21,29-31	
	Luscar	02	54	12-13,24-25,36	
9393030652	Troymin	25	53	2-W,3-11,13-36	8576
[illegible]3030653	Troymin	25	54	1-36	9216
9393030654	Troymin	26	54	1-36	9216
9393030655	Troymin	27	54	1-36	9216
9393030656	Troymin	1	54	12-14,22-28,32-36	5011
		28	54	1,12-13,24-25,36	
9393030657	Troymin	26	55	1-36	9216
9393030658	Troymin	27	55	1-5,6-E,7-E,8-17,18-E, 19-E,20-29,30-E,31-E, 32-36	8311
9393030659	Troymin	1	55	1-6,8-18,20-29,32-36	8192
9393030660	Troymin	27	56	1-5,6-E,7-E,8-17,18-E, 19-E,20-29,30-E,31-E, 32-36	8293
9393030661	Troymin	1	56	1-5,7-36	8960
9393030662	Troymin	2	56	7-30,32-36	7424
[illegible]93030663	Troymin	1	57	1-35	8960

Permit No.	Permit Holder	Rge.	Twp.	Sections	Area (ha) (1 ha=2.5 ac.)
9[illegible]3030664	Troymin	2	57	1-6,8-18,20-30,32-36	8448
9393030665	Troymin	1	58	2-11,14-23,26-35	7936
9393030666	Troymin	2	58	1-5,8-18,20-29,32-36	7680
9393030667	Troymin	1	59	1-30,33-34	8192
9393030668	Troymin	2	59	1-32,35	8448
9393030669	Troymin	3	59	1-4,7-30,36	7424
9393030670	Troymin	4	59	4-5,7-30	6656
9393030671	Troymin	5	59	2,4,6-32	7424
9393030672	Troymin	6	59	1-2,7-30,32-36	7936
9393030673	Troymin	7	59	5-30,33,35-36	7424
9393030674	Troymin	8	59	1-2,8-17,20-29,34-36	6400
9393031002	NCR	24	53	29-32	8960
		24	54	2-11,14-23,26-36	
[illegible]3031003	NCR	24	55	1-36	9216
9393031004	NCR	25	55	1-36	9216
9393031005	NCR	24	56	1-36	9216
9393031006	NCR	25	56	1-36	9216
9393031007	NCR	26	56	1-36	9216
9393031008	NCR	24	57	1-36	9216
9393031009	NCR	25	57	1-36	9216
9393031010	NCR	26	57	1-36	9216
9393031011	NCR	27	57	1-5,6-E,7-E,8-17,18-E, 19-E,20-29,30-E,31-E, 32-36	8726
9393031012	RRI	22	53	1-36	9216
9393031013	RRI	23	53	1-5,9-16,21-28,33-36	9216
		23	54	1-4,9-15	

Permit No.	Permit Holder	Rge.	Twp.	Sections	Area (ha) (1 ha=2.5 ac.)
9393031014	RRI	22	54	3-10,15-22,27-35	6400
9396061015	RRI	23	54	24-26,35-36	9216
		23	55	1,5-9,12-36	
9393031016	RRI	22	55	1-21,28-33	6912
9393031017	RRI	22	56	5-8,17-20,25-36	5120
9393031018	RRI	23	56	1-36	9216
9393031019	RRI	21	57	17-20,29-30	1536
9393031020	RRI	22	57	1-30	7680
9393031021	RRI	23	57	1-36	9216
				Total	377,093 ha

NCR = New Claymore Resources Ltd.
RRI = Rich Resource Investments Ltd.

APPENDIX B

STATEMENT OF QUALIFICATIONS

I, WILLIAM R. GILMOUR, of Vernon, British Columbia, DO HEREBY CERTIFY THAT:

1. I am a Consulting Geologist in mineral exploration.

2. I have been practising my profession for twenty four years in Canada and the United States.

3. I am a graduate of the University of British Columbia, with a Bachelor of Science degree in Geology.

4. I am registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia, as a Professional Geologist with the Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories, and a Fellow of the Geological Association of Canada and the Association of Exploration Geochemists.

5. I am the author of this report which is based upon an examination of the Hinton property in May 1994 and studies of the available published and unpublished reports and data on the property and surrounding area.

6. I have been involved in diamond exploration as a consulting geologist since 1992.

7. I own no interest, direct or indirect, in the securities or properties of Montello Resources Ltd., nor do I expect to acquire any such interest.

8. Permission is hereby granted to Montello Resources Ltd. to use this report in a Statement of Material Facts or Prospectus to be filled with the Albert Stock Exchange, the Alberta Securities Commission and the British Columbia Securities Commission.

Dated at Vernon, B.C. This 3rd day of February, 1995.

PROFESSIONAL PROVINCE OF W. R. GILMOUR BRITISH COLUMBIA GEOSCIENTIST

W.R. Gilmour, P.Geo.

GEOLOGY OF THE HINTON AREA

Explanation of 1:50,000 scale maps

Compiled by Willem Langenberg

Alberta Geological Survey

February, 1995

INTRODUCTION

The stratigraphy and structural geology of the bedrock will be discussed and some comments about the surficial Quaternary Geology will be made.

STRATIGRAPHY

Outcropping rocks range in age from Devonian to Tertiary, while Cambrian rocks are known from the subsurface. The stratigraphic units will be discussed from oldest to youngest.

PALEOZOIC ROCKS

The oldest rocks are the carbonates of the Devonian Palisser (called Wabumun in subsurface) Formation. They are overlain by calcareous shales and thin carbonates of the Mississippian Banff (including Exshaw) Formation. These rocks are overlain by the Mississippian carbonates of the Rundle Group.

TRIASSIC ROCKS (Tr)

Triassic rocks include sandstones and siltstones of the Sulpur Mountain Formation and limestones of the Whitehorse Formation.

FERNIE (Jf) AND NIKANASSIN FORMATIONS (Jn)

The Jurassic Fernie Formation largely consists of marine shales. The overlying, largely Jurassic Nikanassin Formation consists of marine and non-marine sandstones and shales. It is uncomformably overlain by the Cadomin Formation of the Luscar Group.

LUSCAR GROUP (Kl)

The largely Albian Luscar Group consists of the Cadomin, Gladstone, Moosebar and Gates formations. This group, which is equivalent to the Mannville Group of central Alberta, shows both marine and non-marine sedimentary environments and is about 600m thick.

The 10 m thick Cadomin Formation consists of chert pebble conglomerates, deposited in alluvial fans and on braided river pediment plains, and unconformably overlies the Nikanassin Formation. The Cadomin likely represents a major drop in sea level and a major sequence boundary. The Cadomin Formation is an excellent marker horizon, both at the surface and in the subsurface. Overlying rocks of the Luscar Group consist of clastics (sandstones, siltstones and shales in varying proportions) constituting the Gladstone, Moosebar and Gates formations. The Gates Formation contains the major economic coal seams, that are being mined in the Grande Cache and Cadomin areas. Some of the major coal seam outcrops are shown on the Pierre Greys Lakes (NTS 83E/15) mapsheet.

SHAFTESBURY FORMATION (Ks)

The formation consists largely of dark marine shale and siltstone, with minor beds of sandstone, bentonite and some ironstone concretions. Its age is late Albian to early Cenomanian.

DUNVEGAN FORMATION (Kdu)

Brown to reddish weathering quartzitic sandstones with interbedded shale and thin coal seams define the largely marine Dunvegan Formation of Cenomanian age.

KASKAPAU FORMATION (Kk)

The formation consists largely of dark marine shale and siltstone, and some ironstone concretions. Its age is Cenomanian.

CARDIUM FORMATION (Kc)

The Cardium Formation consists of marine sandstone, siltstones and shale. It forms a useful marker horizon for mapping purposes, because it is relatively thin (about 80 m) and the sandstones forms ridges, that are easy recognizable on the aerial photographs. The marine sandstones often contain hummocky cross beds and trace fossils. The Blackstone and Cardium formations form a coarsening upwards succession, indicative of a fall in relative sea-level. The age of the formation is late Turonian to early Coniacian.

WAPIABI FORMATION

The Wapiabi Formation includes all the beds between the Cardium Formation and the greenish sandstones of the Brazeau Formation and is about 600 m thick. The age of the formation is Turonian to Campanian. Seven members have been defined, but the only easily mappable unit on a 1:50 000 scale is the marine sandstone of the Chungo Member. For this reason the

Wapiabi Formation is divided into the Upper and Lower Wapiabi members, whereby the base of the Chungo Member is used as marker horizon.

Lower Wapiabi members (Kwpl)

The lower members are the Muskiki, Marshybank, Dowling, Thistle and Hanson members, which are dark grey, marine shales and siltstones. The Marshybank Member contains a larger percentage of siltstones and the Thistle Member consists of calcareous shales, but these members could not be mapped separately.

Upper Wapiabi members (Kwpu)

The upper members are the Chungo and Nomad members. The Chungo consists of about 70 metres of fine grained, often reddish-brown weathering sandstones and minor siltstone. Hummocky cross-stratification and trace fossils, such as *Planolites* sp. and *Skolithos* sp., indicate that these sandstones are largely marine and clearly distinctive from the younger alluvial sandstones of the Brazeau, Coalspur and Paskapoo formations. Marine bivalves can be found in the Chungo sandstones.

The Nomad Member consists of dark grey marine shales in between the Chungo sandstones and the greenish sandstones of the Brazeau Formation. This member is about 30 metres thick.

Consequently, the upper Wapiabi members (Kwpu) of the accompanying geological maps consists largely of the Chungo Member.

BRAZEAU FORMATION (Kb)

The Brazeau Formation, together with the Coalspur and Paskapoo formations forms part of the Saunders Group. The Brazeau Formation consists of about 1200 metres of sandstones, shales and some coal seams above the marine shales of the Wabiabi Formation and below the basal Entrance Conglomerate of the Coalspur Formation. Some coal seams are present in the upper part of the formation and are shown on some of the maps. The age of the formation is largely Maastrichtian (late Cretaceous).

COALSPUR FORMATION (TKcp)

The Coalspur Formation contains a 600 metres thick continental succession of interbedded sandstones, mudstones and thick economic coal seams. The base of the Coalspur Formation is the so-called Entrance Conglomerate. Thick coal seams interbedded with coaly shales and numerous bentonites occur in the upper part of the formation. This interval is known as the Coalspur coal zone, which is mined at Coal

Valley. The Val d'Or coal seam is at the top of the interval and the Mynheer coal seam is at the bottom. These seams (plus other coal seams) are recognizable in the whole area between Switzer Provincial Park and Coal Valley. The Cretaceous-Tertiary boundary is at the base of the Mynheer coal seam, in the middle of the Coalspur Formation. The Coalspur Formation represents a nonmarine, fluvially dominated environment of deposition.

PASKAPOO FORMATION (Tp)

The Paskapoo Formation consists of at least 1000 metres thick alluvial sandstones and mudstones above the uppermost coal seam of the Coalspur Formation. Its age is Paleocene. The thick coal seams of the Obed Mountain coal mine represent the youngest exposed bedrock of the area.

STRUCTURAL GEOLOGY

Structures of interest to the geology of the area are from northeast to southwest the Alberta Syncline, Wildhay Thrust and Hoff Thrust in the Moberly Creek area (where the cross section is located). The Wildhay Thrust defines the Triangle zone. In the Grande Cache area the major structures are from northeast to southwest the Alberta Syncline, Muskeg Thrust, Mason Thrust and Cowlick Thrust. The southwest verging Wildhay Thrust possibly grades into a detachment zone situated in the lower Wapiabi shales. The Cardium duplexes below the Wildhay Thrust (see cross section) are potential gas exploration targets in future petroleum plays.

DIAMOND OCCURRENCES

The diamond occurrences along a tributary of Pinto Creek in the Hightower Creek area (83F/13) were plotted from information provided by Tony Rich.

SURFICIAL GEOLOGY

The surficial geology was not plotted on top of the bedrock geology, but a 1: 250,000 scale surficial geology map of the Edson sheet (83F) is available (Alberta Research Council, Map 33, by M.A. Roed, published in 1969) and is supplied together with the bedrock maps. The diamonds found in stream samples near Pinto Creek are situated just outside the area covered by this surficial geology survey, but they are close to the boundary between Edson Till (which has a continental source, i.e. Canadian Shield) and Marlboro Till (which has a Cordilleran source, but contains a few granite clasts of Canadian Shield origin). The provenance of the till in the Pinto Creek area should be further investigated before a possible provenance of the diamonds from the Shield can be excluded.

SOURCES OF INFORMATION

Moberly Creek (83E/9)

Lang, A.H. (1949): Geological Survey of Canada. Map 963A, Moberly Creek.

Irish, E.J.W. (1949): Geological Survey of Canada, Map 968A, Moon Creek.

Richardson, R.J.W., Langenberg, C.W., Chao, D.K. and Fietz, D. (1990): Coal compilation project-Moberly Creek. Alberta Research Council, Open File Report 1990-3.

Pierre Greys Lakes (83E/15)

Irish, E.J.W. (1951): Geological Survey of Canada, Map 996A, Pierre Greys Lakes.

Richardson, R.J.W., Langenberg, C.W., Chao, D.K. and Fietz, D. (1990): Coal compilation project-Pierre Greys Lakes. Alberta Research Council, Open File Report 1990-4.

Donald Flats (83E/16)

Green, R. (1972): Geological Map of Alberta. Alberta Research Council, Scale 1:1,000,000.

Richardson, R.J.W., Langenberg, C.W., Chao, D.K. and Fietz, D. (1991): Coal compilation project-Donald Flats. Alberta Research Council, Open File Report 1991-7.

Dalehurst (83F/11)

Green, R. (1972): Geological Map of Alberta. Alberta Research Council, Scale 1:1,000,000.

Gregg Lake (83F/12)

Irish, E.J.W. (1947): Geological Survey of Canada. Map 899A, Gregg Lake.

Hightower Creek (83F/13)

Green, R. (1972): Geological Map of Alberta. Alberta Research Council, Scale 1:1,000,000.

Oldman Creek (83F/14)

Green, R. (1972): Geological Map of Alberta. Alberta Research Council, Scale 1:1,000,000.

In addition, unpublished reports by Union Oil Company of Canada were used to refine the extend of the Brazeau, Coalspur and Paskapoo formations.

Moberly Creek

83-E-09

- - Brazeau coal

Tp	Paskapoo Fm.
KTcp	Coalspur Fm.
KB	Brazeau Fm.
KWPU	Chungo Member of Wapiabi Fm. (plus minor Nomad Mbr.)
KWPL	Lower Wapiabi Fm.
KC	Cardium Fm.
KK	Kaskapau Fm.
KDU	Dunvegan Fm.
KS	Shaftesbury Fm.
KL	Luscar Group
Kcd	Cadomin Fm.
JN	Nikanassin Fm.
JF	Fernie Fm.
TR	Triassic rocks
MR	Rundle Group
MBF	Banff Fm.
DPF	Palliser Fm.

28 strike and dip of bedding

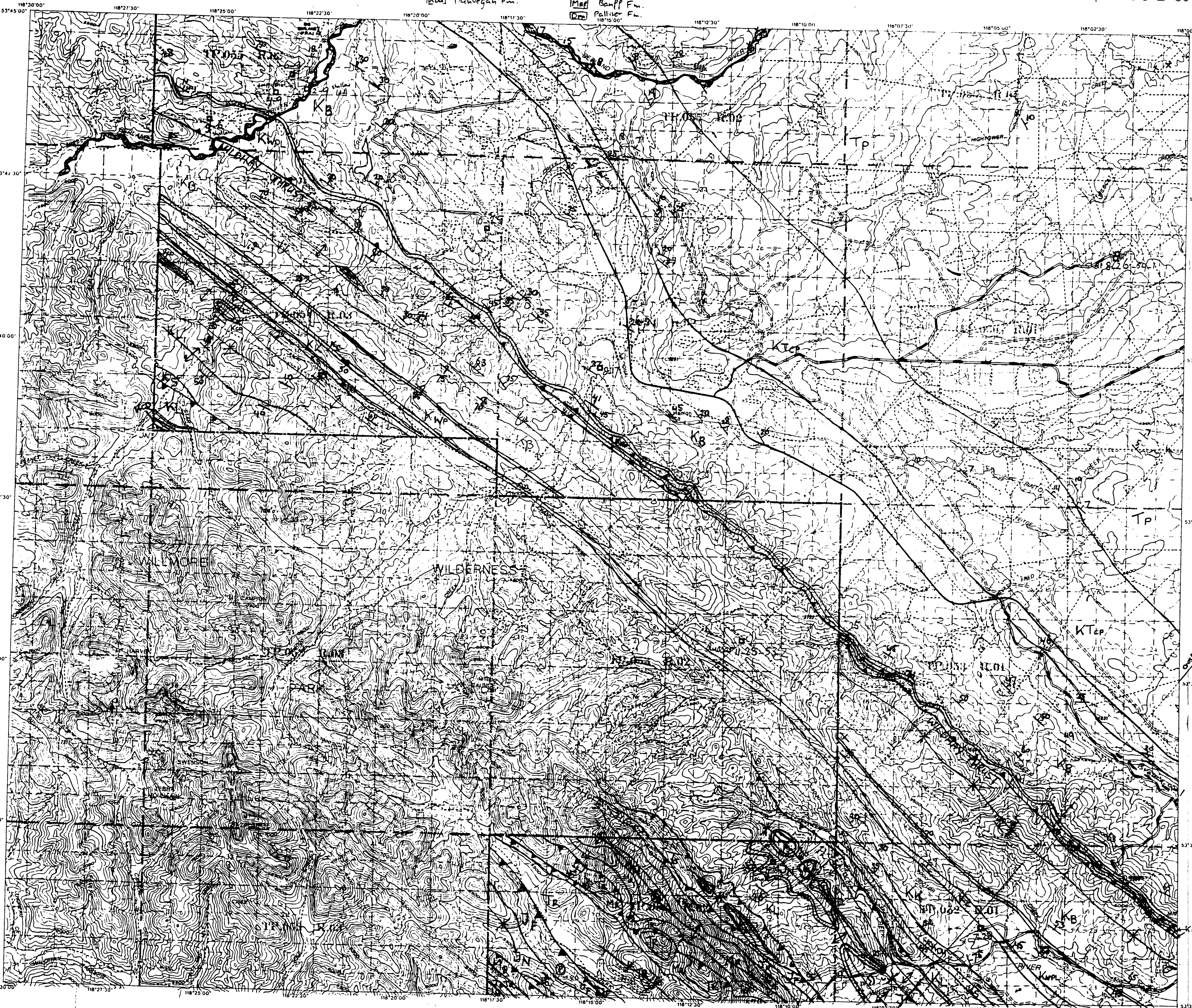
Anticline

Syncline

Thrust fault

(F) Fossil locality

SHEET NO. 83-E-09



SHEET NO. 83-E-09 Moberly Creek

Alberta

FORESTRY, LANDS AND WILDLIFE
Land Information Services Division
Resource Information Branch

RESOURCE ACCESS MAP
1:50 000

- Highway Designation Primary / Secondary
- Hard Surface - All weather
- Loose or Stabilized Surface - All weather (Main route)
- Loose or Stabilized Surface - All weather
- Loose Surface - Dry weather
- Truck Trail
- Seismic Line, Trail, Cutline
- Highway Interchange
- Bridge
- Ford Crossing (Subject to Conditions)
- Railway, Railway Point
- Railway (Abandoned, Condition or use unknown)
- Pipeline (Major)
- Transmission Line (Major)
- Communication Tower (100 metres+)
- Lookout Tower
- Forest Headquarters
- Forest Recreation Area (Alberta Forest Service) A.F.S.
- Ranger Station
- Provincial Recreation Area (Alberta Recreation and Parks) P.R.A.
- Forestry Cabin
- Campsite (Alberta Transportation) A.T.
- Heliport (Transport Canada)
- Float Landing (Alberta Forest Service)
- Airfield - Elevation and Length (A.S.L.) in hundreds of feet (hundreds of metres in brackets)
- Airstrip (Condition unknown)
- Township Line - Surveyed
- Township Line - Unsurveyed
- Section Line - Surveyed/Unsurveyed
- Quarter Section Line with Section Number
- Major River
- Perennial River or Stream
- Intermittent or Indefinite Stream
- Lake (Water level in metres A.S.L.)
- Intermittent Lake
- Sand or Gravel Bar
- Oil and Gas Activity Site
- Clearing (Manmade)
- Permanent Sample Plots (P.S.P.)
- Mill Site
- Gravel Pit, Sand Pit, Mine or Quarry

PRODUCED AUGUST 1992

Map Base created from 1:20,000 Provincial Digital Base

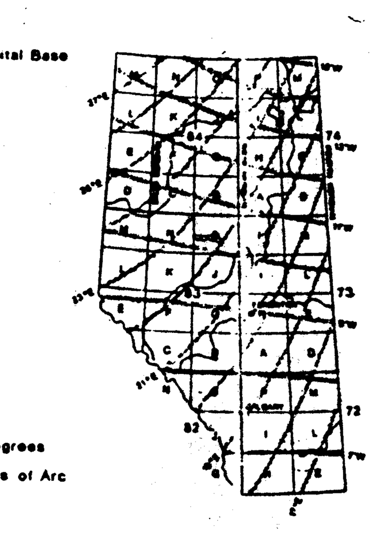
Alberta township survey current to 1985

LATEST aerial photography used in revising *ACCESS ONLY*

1990

83E

13	14	15	16
12	11	10	9
5	6	7	8
4	3	2	1



Magnetic Chart of Alberta for Epoch 1990.0

Average Declination of the Compass in Degrees

Average Decrease of Declination in Minutes of Arc

NOTE Information as depicted, is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use.

Contour interval 100'

SCALE 1 : 50 000

WEST OF THE SIXTH MERIDIAN

Kilometres 0 1 2 3 4 5 6

Miles 0 ½ 1 2 3

Universal Transverse Mercator Projection

Produced by Resource Mapping Section of the Land Information Services Division and is intended for Internal Use by Forestry, Lands and Wildlife

83-E-15

Pierre Greys Lakes

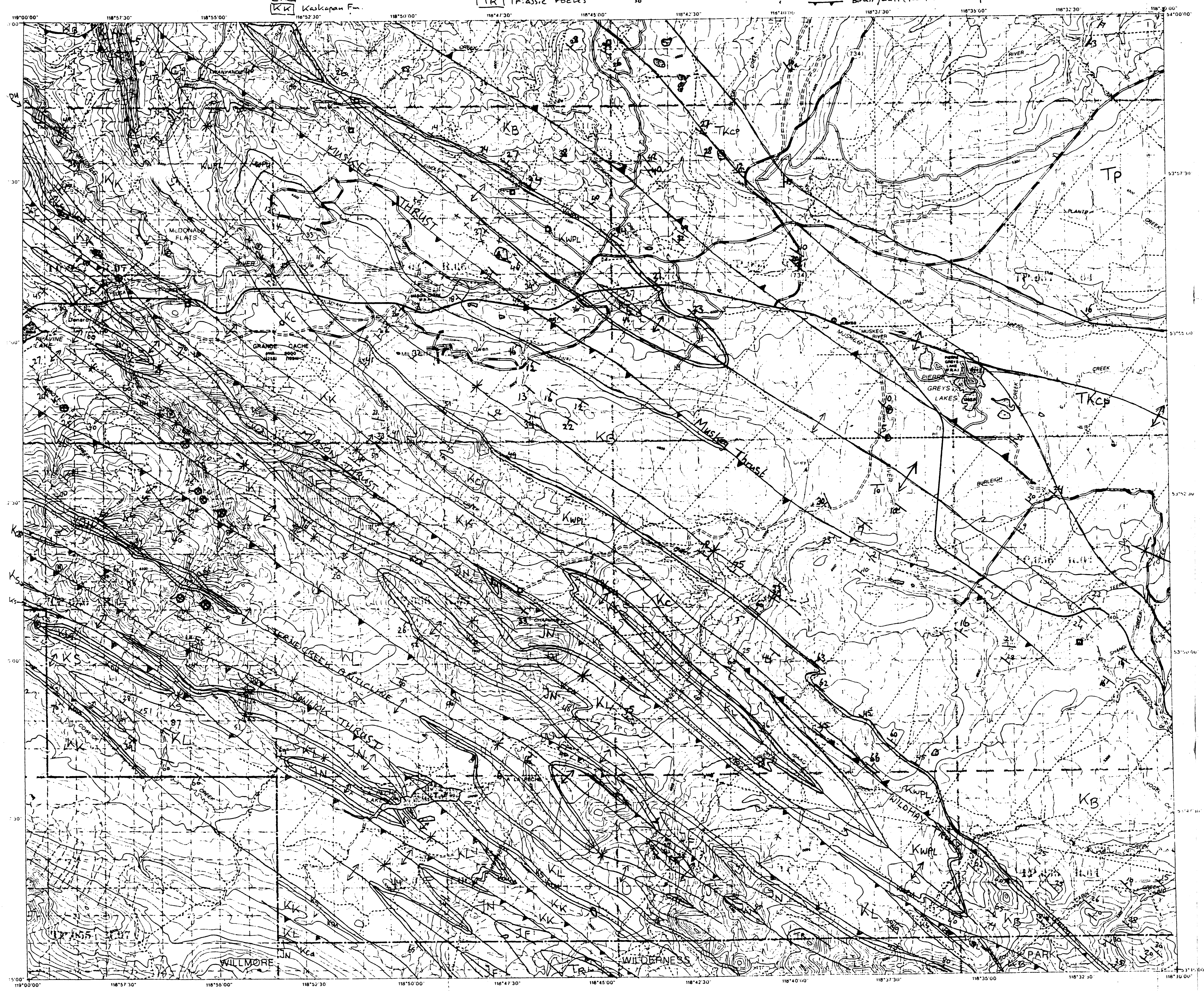
Tp Paskapoo Fm.
TKcp Coalspur Fm.
KB Brazeau Fm.
KWPU Chungo Mbr. of Wapiabi Fm. (plus minor Nomad Mbr.)
KWPL Lower Wapiabi Fm.
KC Cardium Fm.
KK Kaskapau Fm.

KDU Dunvegan Fm.
KS Shaftesbury Fm.
KL Luscar Group
Kcd Cadomin Fm.
JN Nikanassin Fm.
JF Fernie Fm.
TR Triassic rocks

outcrop of thick coal seam
(F) Fossil locality
30 strike and dip of bedding

anticline
syncline
thrust fault (teeth indicate upthrust side)

SHEET NO. 83-E-15



SHEET NO. 83-E-15 Pierre Greys Lakes

Alberta

FORESTRY, LANDS AND WILDLIFE
Land Information Services Division
Resource Information Branch

RESOURCE ACCESS MAP

1:50 000

Highway Designation : Primary / Secondary .... 72 / 627
Hard Surface - All weather
Loose or Stabilized Surface - All weather (Main route)
Loose or Stabilized Surface - All weather
Loose Surface - Dry weather
Truck Trail
Seismic Line, Trail, Cutline
Highway Interchange
Bridge
Ford Crossing (Subject to Conditions)
Railway, Railway Point
Railway (Abandoned, Condition or use unknown)
Pipeline (Major)
Transmission Line (Major)
Communication Tower (100 metres+)
Lookout Tower
Forest Headquarters
Forest Recreation Area (Alberta Forest Service) .... A.F.S.
Ranger Station
Provincial Recreation Area (Alberta Recreation and Parks) .... P.R.A.
Forestry Cabin
Campsite (Alberta Transportation) .... A.T.
Heliport (Transport Canada)
Float Landing (Alberta Forest Service)
Airfield - Elevation and Length (A.S.L.) in hundreds of feet (hundreds of metres in brackets) 28 40 (9) (12)
Airstrip (Condition unknown)
Township Line - Surveyed
Township Line - Unsurveyed
Section Line - Surveyed/Unsurveyed
Quarter Section Line with Section Number
Major River
Perennial River or Stream
Intermittent or Indefinite Stream
Lake (Water level in metres A.S.L.)
Intermittent Lake
Sand or Gravel Bar
Oil and Gas Activity Site
Clearing (Manmade) .... Clg
Permanent Sample Plots (P.S.P.)
Mill Site .... MS
Gravel Pit, Sand Pit, Mine or Quarry

PRODUCED SEPTEMBER 1992

Map Base created from 1:20 000 Provincial Digital Base

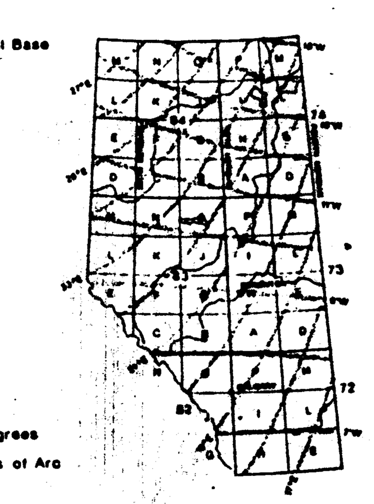
Alberta township survey current to 1985

LATEST aerial photography used in revising *ACCESS ONLY*

1990

83E

13	14	15	16
12	11	10	9
5	6	7	8
4	3	2	1



Magnetic Chart of Alberta for Epoch 1990.0
Average Declination of the Compass in Degrees
Average Decrease of Declination in Minutes of Arc

NOTE: information as depicted, is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use.

Contour interval 100' **SCALE 1:50 000**

WEST OF THE SIXTH MERIDIAN

Kilometres 0 1 2 3 4 5 Kilometres
Miles 0 ½ 1 2 3 Miles

Universal Transverse Mercator Projection

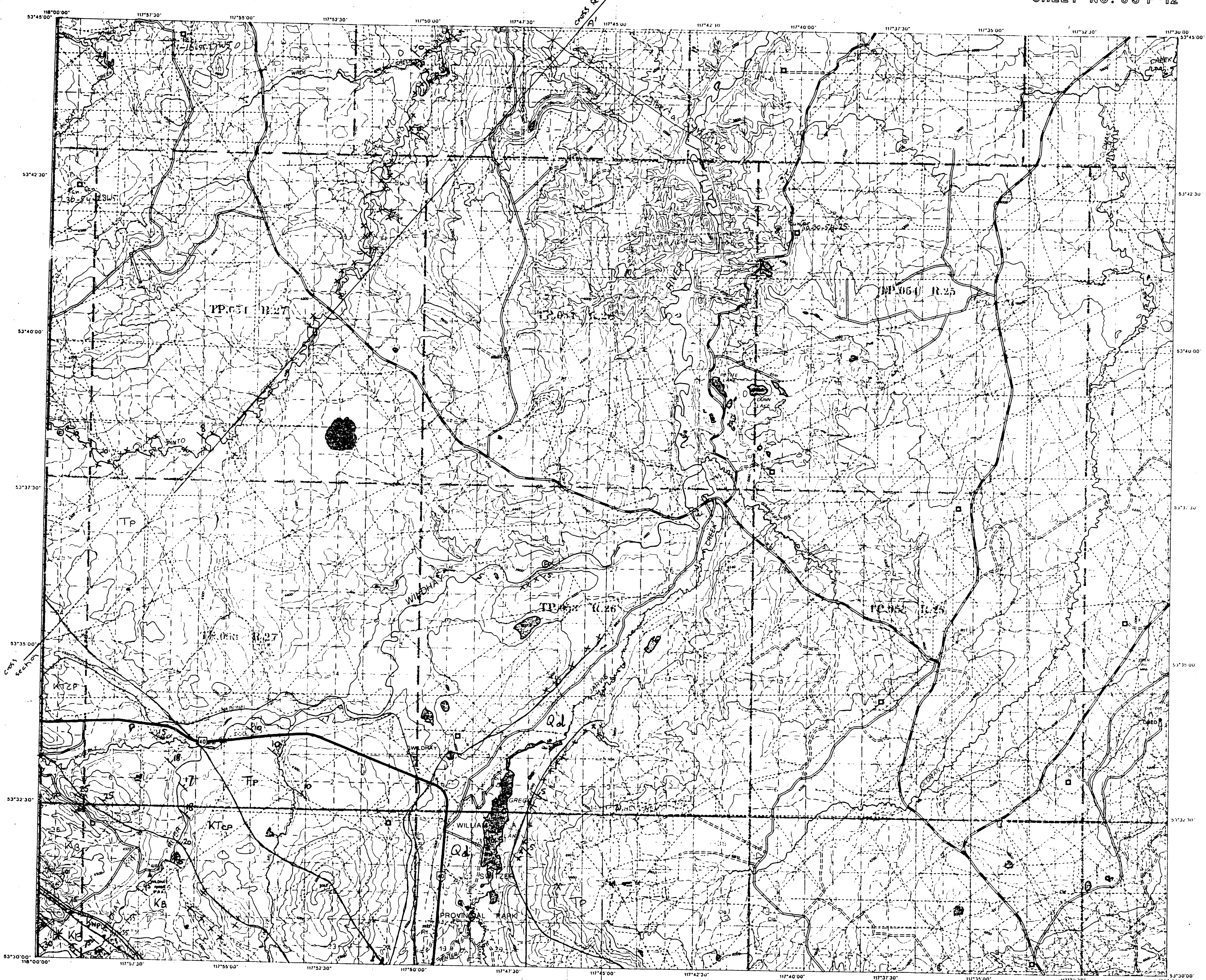
Produced by Resource Mapping Section of the Land Information Services Division and is intended for internal use by Forestry, Lands and Wildlife

83F-12

GREGG LAKE

Alberta
ENVIRONMENTAL PROTECTION
Resource Information Management Branch

SHEET NO. 83-F-12



SHEET NO. 83-F-12 Gregg Lake

RESOURCE ACCESS MAP
1:50 000

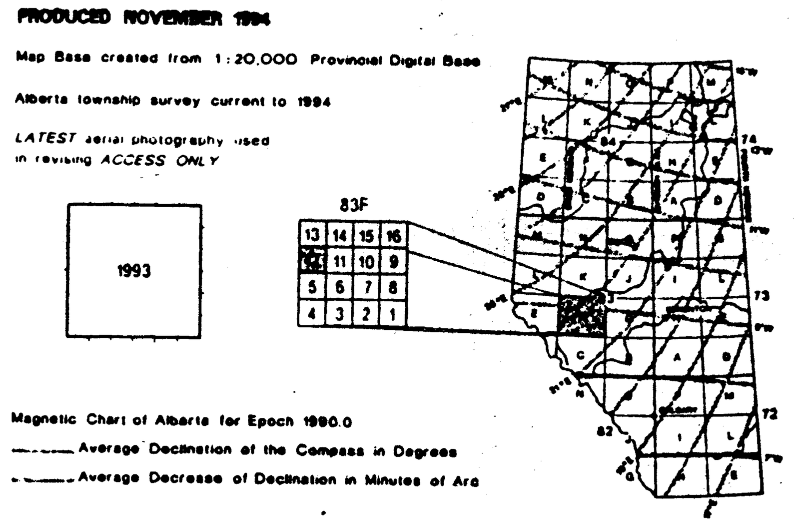
Highway Designation : Primary / Secondary .... 72 / 631
Hard Surface - All weather ....
Loose or Stabilized Surface - All weather (Main route) ....
Loose or Stabilized Surface - All weather ....
Loose Surface - Dry weather ....
Truck Trail ....
Seismic Line, Trail, Cutline ....
Highway Interchange ....
Bridge ....
Ford Crossing (Subject to Conditions) ....
Railway; Railway Point ....
Railway (Abandoned, Condition or use unknown) ....
Pipeline ....
Transmission Line (Major) ....
Communication Tower (100 metres+) .... Lookout Tower ....
Recreation Area .... Forest Headquarters ....
Heliport (Transport Canada) .... Ranger Station ....
Airfield - Elevation and Length (A.S.L.) in hundreds of feet (hundreds of metres in brackets) 28 40 (9) (12)
Airstrip (Condition unknown) ....
Township Line - Surveyed ....
Township Line - Unsurveyed ....
Section Line - Surveyed/Unsurveyed ....
Quarter Section Line with Section Number 24
Major River ....
Perennial River or Stream ....
Intermittent or Indefinite Stream ....
Lake (Water level in metres A.S.L.) ....
Intermittent Lake ....
Sand or Gravel Bar ....
Oil and Gas Activity Site ....
Clearing (Manmade) .... Clg
Permanent Sample Plots (P.S.P.) ....
Mill Site .... MS
Gravel Pit, Sand Pit, Mine or Quarry ....

PRODUCED NOVEMBER 1994

Map Base created from 1:20,000 Provincial Digital Base

Alberta township survey current to 1994

LATEST aerial photography used in revising *ACCESS ONLY*



Magnetic Chart of Alberta for Epoch 1990.0
Average Declination of the Compass in Degrees
Average Decrease of Declination in Minutes of Arc

NOTE: Information as depicted, is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use.

Contour interval 100'

SCALE 1:50 000

WEST OF THE FIFTH MERIDIAN

Kilometres 0 1 2 3 4 5 6 Kilometres
Miles 0 ½ 1 2 3 Miles

Universal Transverse Mercator Projection

Produced by Resource Information Management Branch, Land Information Division and is intended for internal use by Alberta Environmental Protection.

Tp Paskapoo Fm.
KTcp Coalspur Fm. (includes: Pepper's Lake Coal zone)
KB Brazeau Fm.
Kwm Chungo Member of Wapiabi Fm. (plus minor Nomad Mbr.)
Kwl Lower Wapiabi Fm.

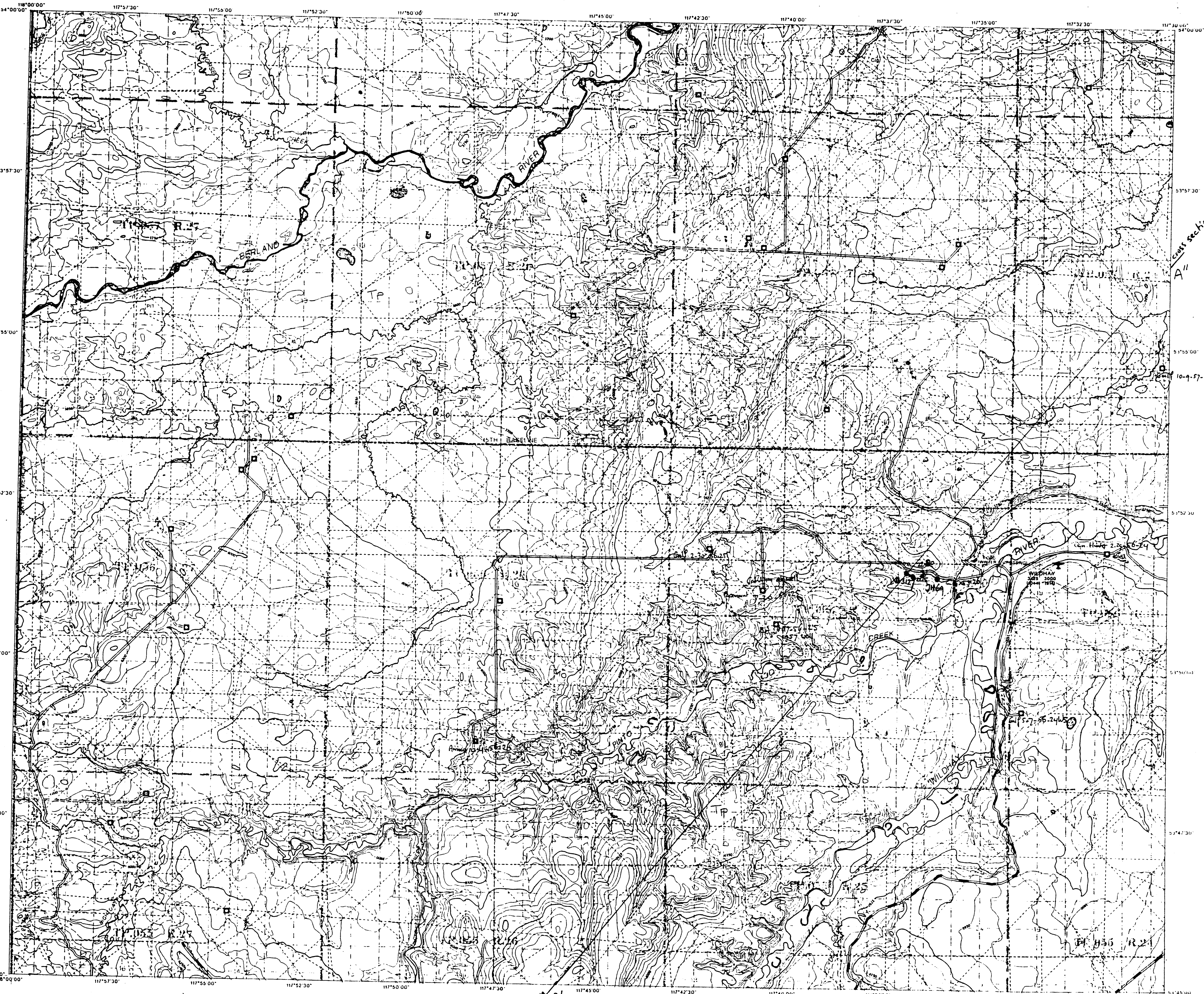
Qal Alluvium

⊕ Fossil locality

83 F-13
Hightower Creek

Alberta
ENVIRONMENTAL PROTECTION
Resource Information Management Branch

SHEET NO. 83-F-13



SHEET NO. 83-F-13 Hightower Creek

RESOURCE ACCESS MAP
1:50 000

Highway Designation : Primary / Secondary ---- 72 / 827
Hard Surface - All weather
Loose or Stabilized Surface - All weather (Main route)
Loose or Stabilized Surface - All weather
Loose Surface - Dry weather
Truck Trail
Seismic Line, Trail, Cutline
Highway Interchange
Bridge
Ford Crossing (Subject to Conditions)
Railway; Railway Point
Railway (Abandoned, Condition or use unknown)
Pipeline
Transmission Line (Major)
Communication Tower (100 metres+) — Lookout Tower
Recreation Area — Forest Headquarters
Heliport (Transport Canada) — Ranger Station
Airfield - Elevation and Length (A.S.L.) In hundreds of feet (hundreds of metres in brackets) ---- 28 40 (9) (12)
Airstrip (Condition unknown)
Township Line - Surveyed
Township Line - Unsurveyed
Section Line - Surveyed/Unsurveyed
Quarter Section Line with Section Number ---- 24
Major River
Perennial River or Stream
Intermittent or Indefinite Stream
Lake (Water level in metres A.S.L.)
Intermittent Lake
Sand or Gravel Bar
Oil and Gas Activity Site
Clearing (Manmade) ---- Clg.
Permanent Sample Plots (P.S.P.)
Mill Site ---- M.S.
Gravel Pit, Sand Pit, Mine or Quarry

⊗ Diamonds in stream samples

PRODUCED NOVEMBER 1994

Map Base created from 1:20,000 Provincial Digital Base

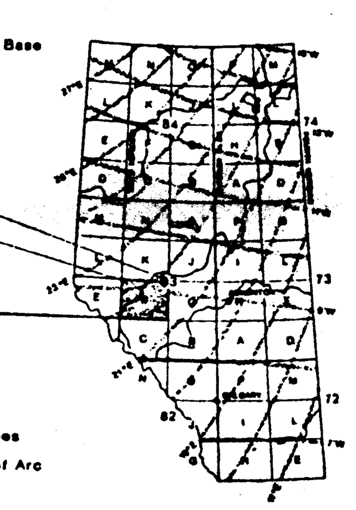
Alberta township survey current to 1994

LATEST aerial photography used in revising *ACCESS ONLY*

1993

83F

13	14	15	16
12	11	10	9
5	6	7	8
4	3	2	1



Magnetic Chart of Alberta for Epoch 1990.0
Average Declination of the Compass in Degrees
Average Decrease of Declination in Minutes of Arc

NOTE Information as depicted, is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use.

Contour interval 50'

SCALE 1 : 50 000

WEST OF THE FIFTH MERIDIAN

Kilometres 0 1 2 3 4 5 6 Kilometres
Miles 0 ½ 1 2 3 Miles

Universal Transverse Mercator Projection

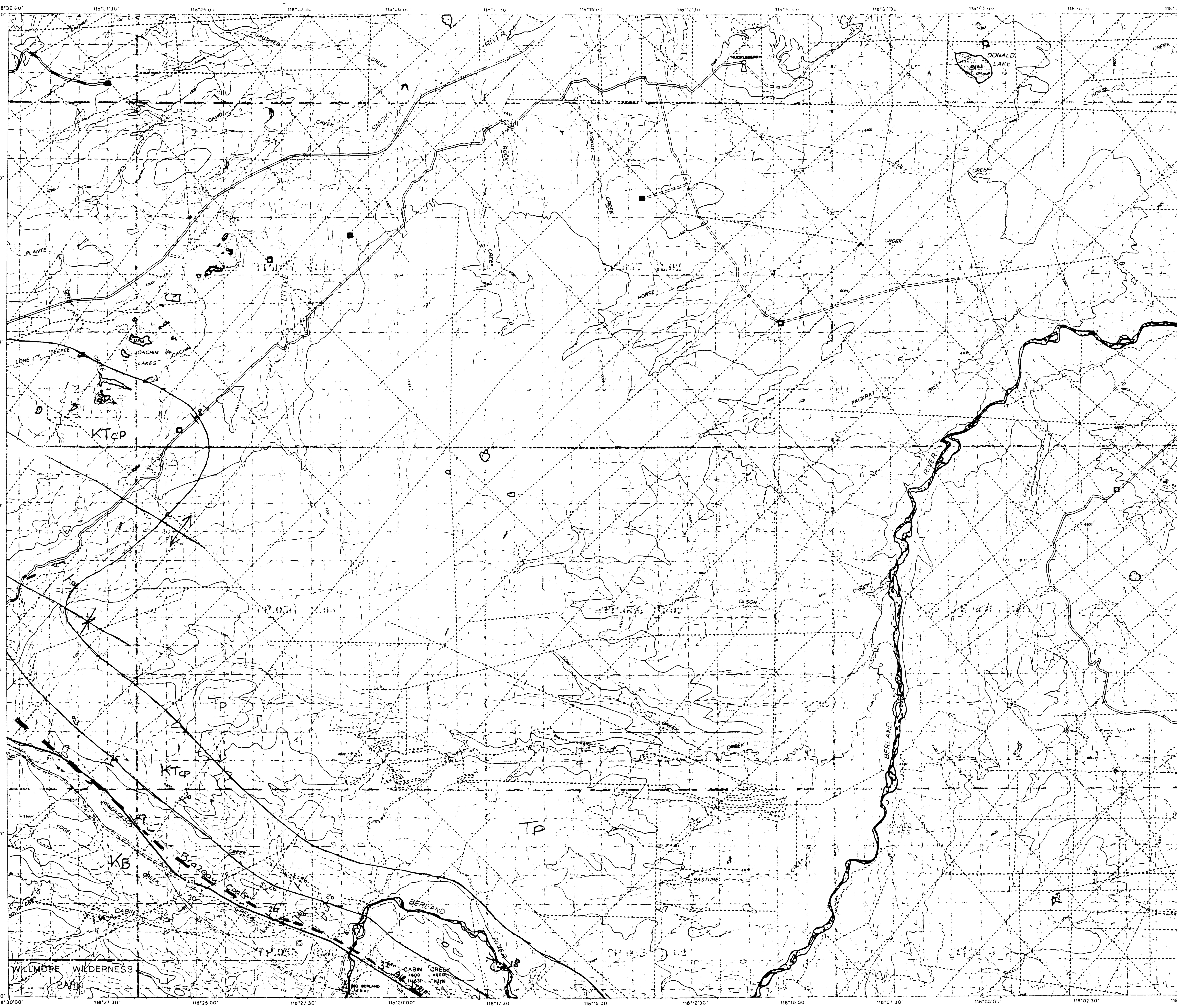
Produced by Resource Information Management Branch, Land Information Division and is intended for internal use by Alberta Environmental Protection.

TP Paskapoo Fm.

83 F-16

DONALD FLATS

SHEET NO. 83-E-16



SHEET NO. 83-E-16 Donald Flats

Tp Paskapoo Fm

TKcp Coalspur Fm

KB Brazeau Fm

Brazeau coals

FORESTRY, LANDS AND WILDLIFE
Land Information Services Division
Resource Information Branch

RESOURCE ACCESS MAP

1:50 000

Highway Designation : Primary / Secondary .... 72 / 627

Hard Surface - All weather

Loose or Stabilized Surface - All weather (Main route)

Loose or Stabilized Surface - All weather

Loose Surface - Dry weather

Truck Trail

Seismic Line, Trail, Cutline

Highway Interchange

Bridge

Ford Crossing (Subject to Conditions)

Railway, Railway Point

Railway (Abandoned, Condition or use unknown)

Pipeline (Major)

Transmission Line (Major)

Communication Tower (100 metres+)

Lookout Tower

Forest Headquarters

Forest Recreation Area (Alberta Forest Service) .... A.F.S.

Ranger Station

Provincial Recreation Area (Alberta Recreation and Parks) .... P.R.A.

Forestry Cabin

Campsite (Alberta Transportation) .... A.T.

Heliport (Transport Canada)

Float Landing (Alberta Forest Service)

Airfield - Elevation and Length (A.S.L.) in hundreds of feet (hundreds of metres in brackets) 28 40 (9) (12)

Airstrip (Condition unknown)

Township Line - Surveyed

Township Line - Unsurveyed

Section Line - Surveyed/Unsurveyed

Quarter Section Line with Section Number 24

Major River

Perennial River or Stream

Intermittent or Indefinite Stream

Lake (Water level in metres A.S.L.)

Intermittent Lake

Sand or Gravel Bar

Oil and Gas Activity Site

Clearing (Manmade) .... Clg

Permanent Sample Plots (P.S.P.)

Mill Site .... MS

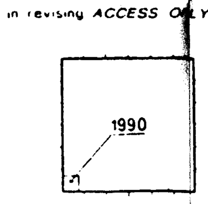
Gravel Pit, Sand Pit, Mine or Quarry

PRODUCED SEPTEMBER 1992

Map Base created from 1:20,000 Provincial Digital Base

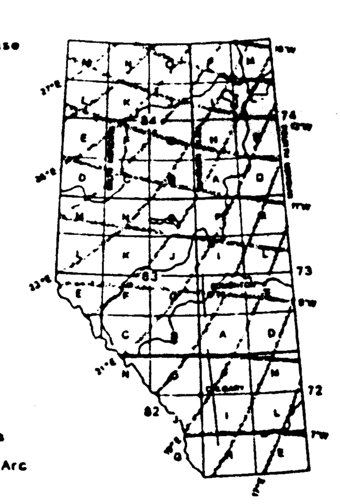
Alberta township survey current to 1985

LATEST aerial photography used in revising *ACCESS ONLY*



83E

13	14	15	16
12	11	10	9
5	6	7	8
4	3	2	1



Magnetic Chart of Alberta for Epoch 1990.0

Average Declination of the Compass in Degrees

Average Decrease of Declination in Minutes of Arc

NOTE: information as depicted, is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use.

Contour interval 100'

SCALE 1 : 50 000

WEST OF THE SIXTH MERIDIAN

Kilometres 0 1 2 3 4 5 6 Kilometres

Miles 0 ½ 1 2 3 Miles

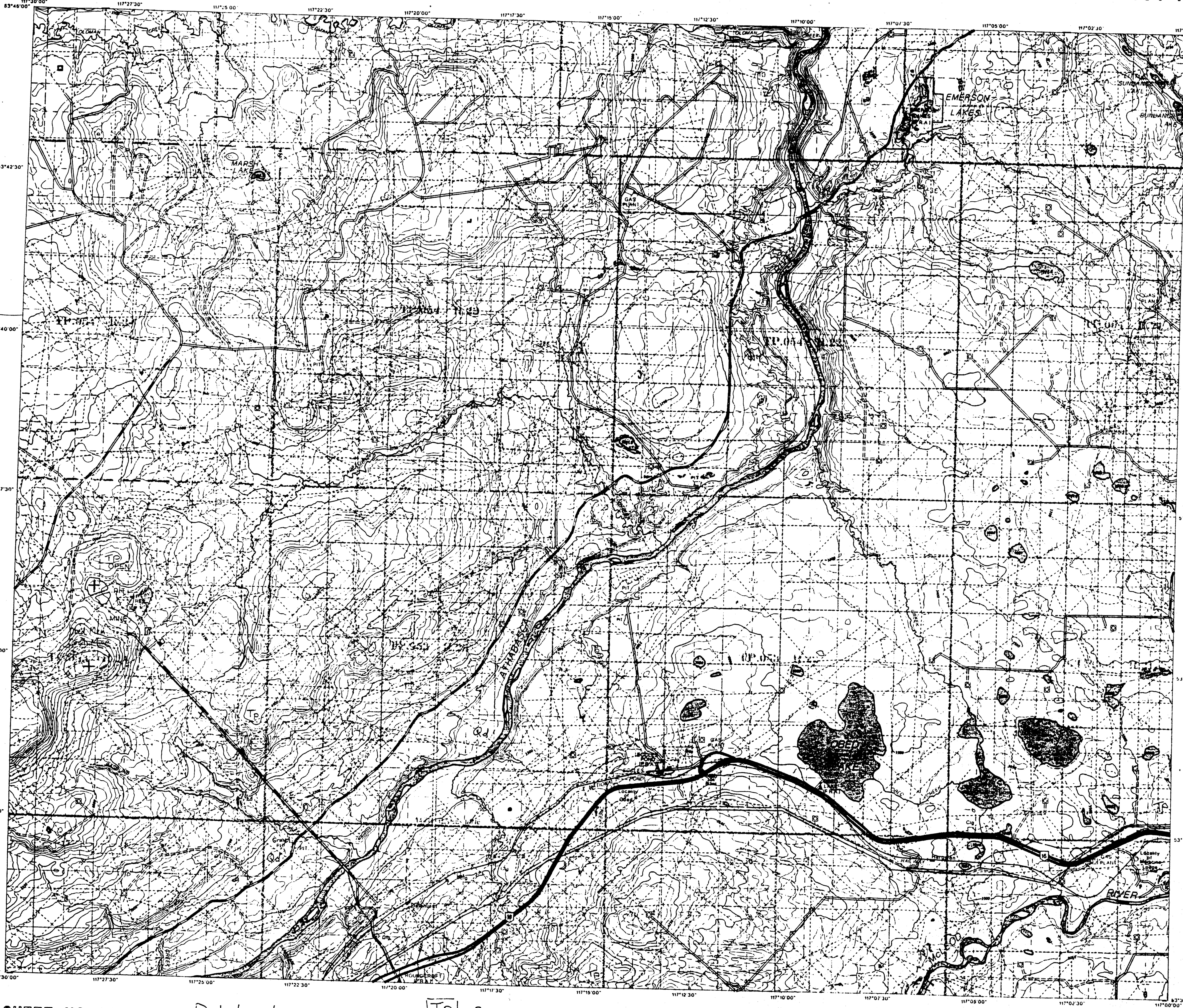
Universal Transverse Mercator Projection

Produced by Resource Mapping Section of the Land Information Services Division and is intended for Internal Use by Forestry, Lands and Wildlife

83F-13 DALEHURST

ENVIRONMENTAL PROTECTION
Resource Information Management Branch

SHEET NO. 83-F-11



SHEET NO. 83-F-11 Dalehurst

Tp Paskapoo Fm (includes obed coals)

RESOURCE ACCESS MAP
1:50 000

Highway Designation . Primary / Secondary
Hard Surface - All weather
Loose or Stabilized Surface - All weather (Main route)
Loose or Stabilized Surface - All weather
Loose Surface - Dry weather
Truck Trail
Seismic Line, Trail, Cutline
Highway Interchange
Bridge
Ford Crossing (Subject to Conditions)
Railway; Railway Point
Railway (Abandoned, Condition or use unknown)
Pipeline
Transmission Line (Major)
Communication Tower (100 metres+) — Lookout Tower
Recreation Area — Forest Headquarters
Heliport (Transport Canada) — Ranger Station
Airfield - Elevation and Length (A.S.L.) in hundreds of feet (hundreds of metres in brackets)
Airstrip (Condition unknown)
Township Line - Surveyed
Township Line - Unsurveyed
Section Line - Surveyed/Unsurveyed
Quarter Section Line with Section Number
Major River
Perennial River or Stream
Intermittent or Indefinite Stream
Lake (Water level in metres A.S.L.)
Intermittent Lake
Sand or Gravel Bar
Oil and Gas Activity Site
Clearing (Manmade) Clg
Permanent Sample Plots (P.S.P.)
Mill Site
Gravel Pit, Sand Pit, Mine or Quarry

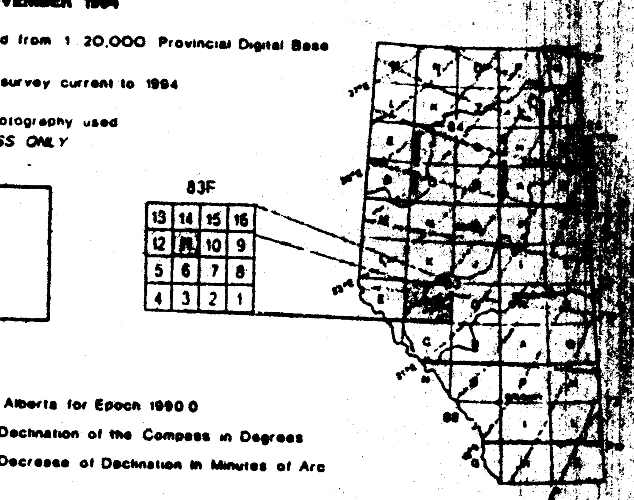
PRODUCED NOVEMBER 1994

Map Base created from 1:20,000 Provincial Digital Base

Alberta township survey current to 1994

LATEST aerial photography used in revising *ACCESS ONLY*

1993



Magnetic Chart of Alberta for Epoch 1990.0

Average Declination of the Compass in Degrees

Average Decrease of Declination in Minutes of Arc

NOTE: Information as depicted, is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use.

Contour interval 50'

SCALE 1 : 50 000

WEST OF THE FIFTH MERIDIAN

Kilometres 0 1 2 3 4 5 6
Miles 0 ½ 1 2 3

Universal Transverse Mercator Projection

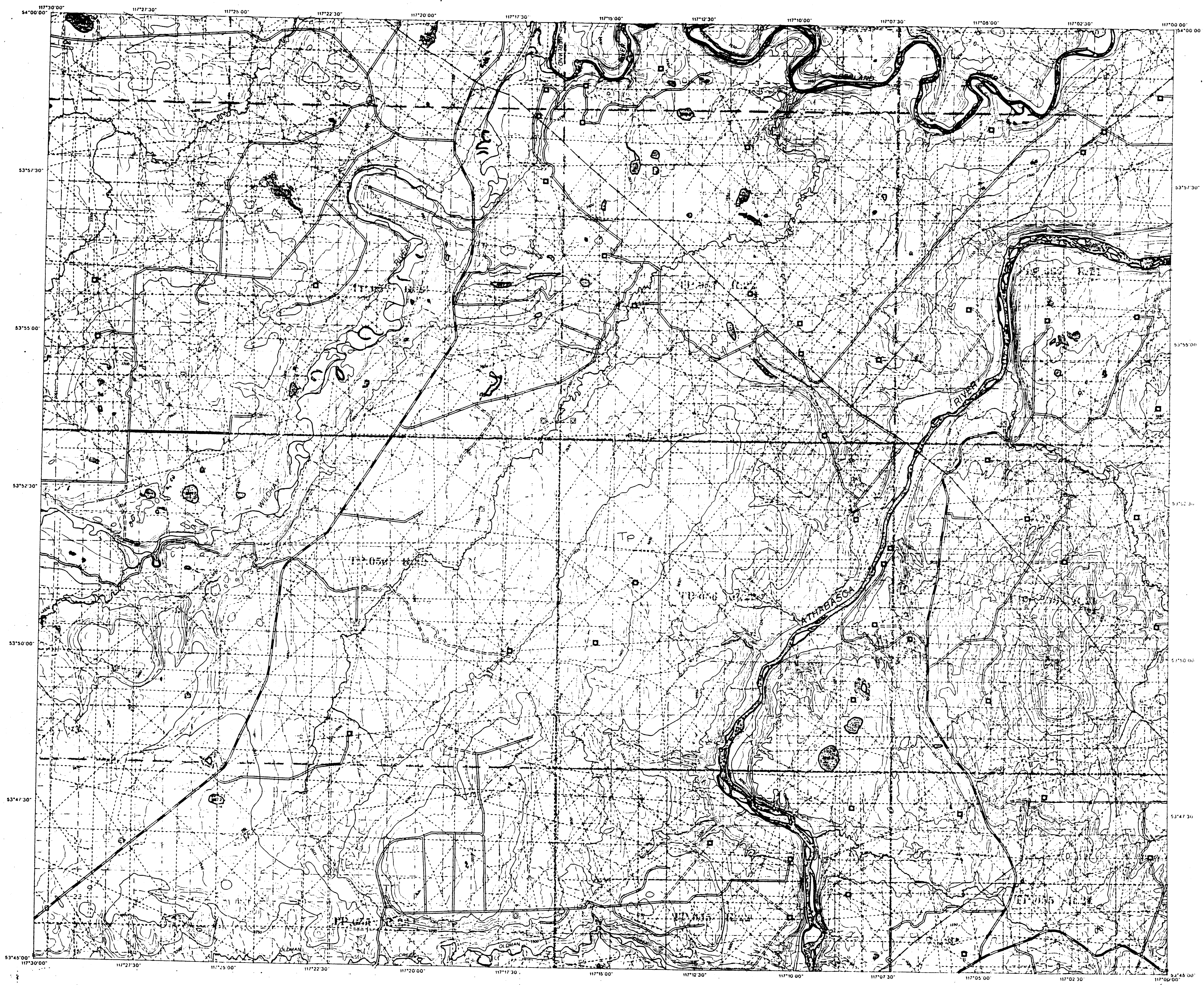
Produced by Resource Information Management Branch, Land Information Division and is intended for internal use by Alberta Environmental Protection.

OLDMAN CREEK

83F-14

Alberta
ENVIRONMENTAL PROTECTION
Resource Information Management Branch

SHEET NO. 83-F-14



SHEET NO. 83-F-14 Oldman Creek

Tp Paskapoo Fm

RESOURCE ACCESS MAP

1:50 000

Highway Designation . Primary / Secondary 72 / 627
Hard Surface - All weather
Loose or Stabilized Surface - All weather (Main route)
Loose or Stabilized Surface - All weather
Loose Surface - Dry weather
Truck Trail
Seismic Line, Trail, Cutline
Highway Interchange
Bridge
Ford Crossing (Subject to Conditions)
Railway, Railway Point
Railway (Abandoned, Condition or use unknown)
Pipeline
Transmission Line (Major)
Communication Tower (100 metres+)
Lookout Tower
Recreation Area
Forest Headquarters
Heliport (Transport Canada)
Ranger Station
Airfield - Elevation and Length (A S L) In hundreds of feet (hundreds of metres in brackets) 28 40 (9) (12)
Airstrip (Condition unknown)
Township Line - Surveyed
Township Line - Unsurveyed
Section Line - Surveyed/Unsurveyed
Quarter Section Line with Section Number 24
Major River
Perennial River or Stream
Intermittent or Indefinite Stream
Lake (Water level in metres A S L)
Intermittent Lake
Sand or Gravel Bar
Oil and Gas Activity Site
Clearing (Manmade) Clg.
Permanent Sample Plots (P S P) PSP 440
Mill Site M.S.
Gravel Pit, Sand Pit, Mine or Quarry

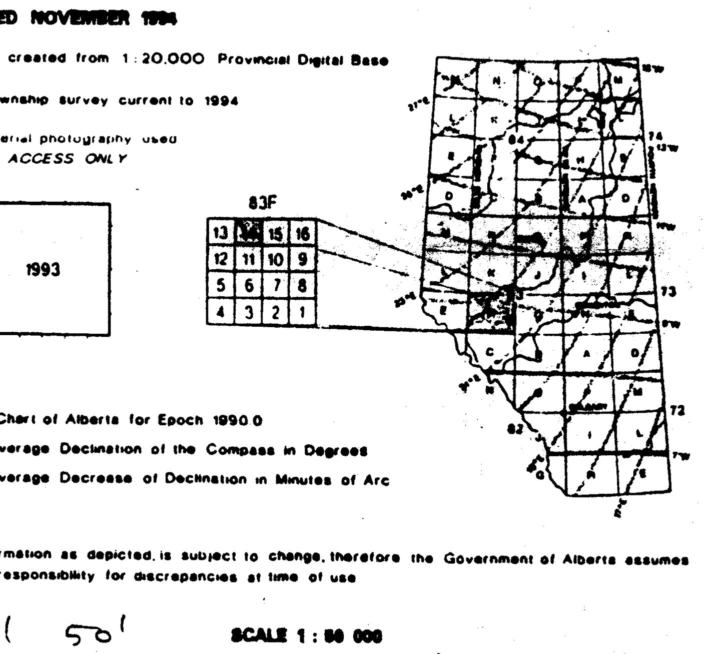
PRODUCED NOVEMBER 1994

Map Base created from 1:20,000 Provincial Digital Base

Alberta township survey current to 1994

LATEST aerial photography used in revising *ACCESS ONLY*

1993



Magnetic Chart of Alberta for Epoch 1990.0

Average Declination of the Compass in Degrees

Average Decrease of Declination in Minutes of Arc

NOTE. Information as depicted, is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use

Contour interval 50'

SCALE 1 : 50 000

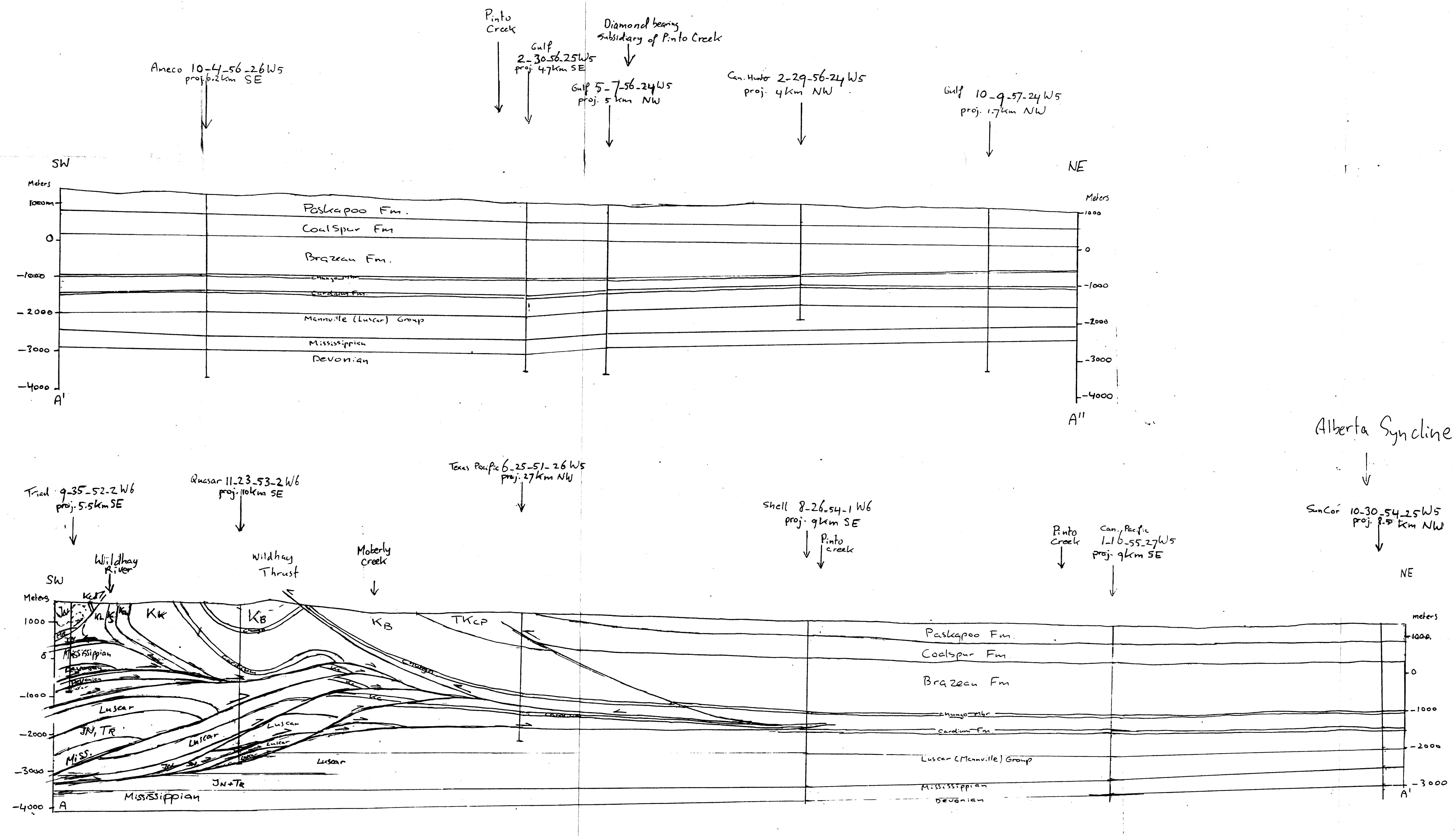
WEST OF THE FIFTH MERIDIAN

Kilometres 0 1 2 3 4 5 6 Kilometres
Miles 0 ½ 1 2 3 Miles

Universal Transverse Mercator Projection

Produced by Resource Information Management Branch, Land Information Division and is intended for internal use by Alberta Environmental Protection.

CROSS SECTION TROUGH TROYMIN – NEW CLAYMORE PROPERTIES IN HINTON AREA
(line of section indicated on maps)
Scale 1:50,000 (horizontal and vertical)



Report #1179

DIGHEM MAGNETIC SURVEY
FOR
MONTELLO RESOURCES LTD.
HINTON AREA
ALBERTA

NTS: 83E/9,1; 83L/1-3; 83F/11-15

Dighem, A division of CGG Canada Ltd.
Mississauga, Ontario

Greg Hodges
Geophysicist

A1179AUG.95R

SUMMARY

This report describes the logistics and results of a DIGHEM airborne magnetic survey carried out for MONTELLO RESOURCES LTD., over a property located near HINTON, ALBERTA. Total coverage of the survey block amounted to 21,500 line km. The survey was flown from May 10, 1994 to July 3, 1994.

The purpose of the survey was to detect magnetic anomalies indicative of lamproites or kimberlites. This was accomplished by using a helicopter-borne high sensitivity cesium magnetometer, the data from which was processed to produce maps of the magnetic field over the survey area. The results were interpreted and prioritized based on anomaly shape and strength, choosing those anomalies which indicated circular features of moderate (100 m - 1000 m) width.

The survey property contains numerous anomalous features, many of which are considered to be of moderate to high priority as exploration targets. Most of the inferred bedrock magnetic anomalies appear to warrant further investigation using appropriate ground exploration techniques. Areas of interest may be assigned priorities on the basis of supporting geophysical, geochemical and/or geological information. After initial investigations have been carried out, it may be necessary to re-evaluate the remaining anomalies based on information acquired from the follow-up program.

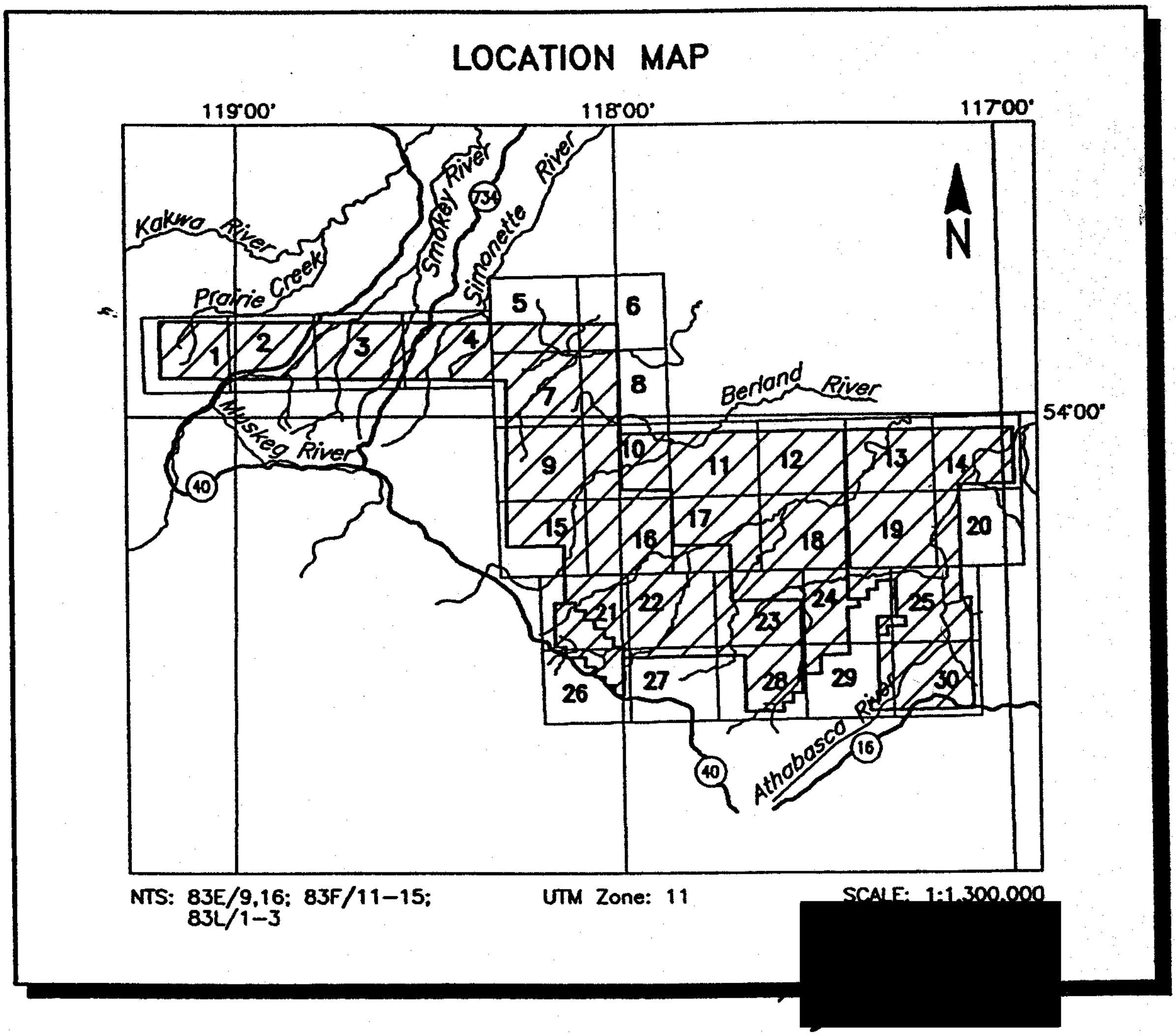


FIGURE 1

MONTELLO RESOURCES

HINTON AREA, ALBERTA - #1179

CONTENTS

INTRODUCTION

A DIGHEM magnetic survey was flown for Montello Resources from May 10, 1994 to July 3,1994, over a survey block located near Hinton, Alberta. The survey area can be located on NTS map sheets 83E/9,16; 83L/1-3; 83F/11-15 (see Figure 1).

Survey coverage consisted of approximately 20,500 line-km, including tie lines. Flight lines were flown in an azimuthal direction of 090° with a line separation of 200 metres. The survey employed a helicopter borne Picodas optically pumped cesium magnetometer.

Section 2 provides details on the survey equipment, the data channels, their respective sensitivities, and the navigation/flight path recovery procedure.

SURVEY EQUIPMENT

This section provides a brief description of the geophysical instruments used to acquire the survey data:

Magnetometer

Model:	Picodas 3340
Type:	Optically pumped cesium vapour magnetometer
Sensitivity:	0.01 nT
Sample rate:	10 per second

The magnetometer sensor is towed in a bird 20 m below the helicopter.

Magnetic Base Station

Model:	Geometrics G-826
Type:	Digital recording proton precession
Sensitivity:	1.0 nT
Sample rate:	0.2 per second

A digital recorder is operated in conjunction with the base station magnetometer to record the temporal variations of the earth's magnetic field. The clock of the base station is synchronized with that of the airborne system to permit subsequent removal of the drift.

Radar Altimeter

Manufacturer:	Honeywell/Sperry
Type:	AA 220
Sensitivity:	0.3 m

The radar altimeter measures the vertical distance between the helicopter and the ground.

Analog Recorder

Manufacturer:	RMS Instruments
Type:	DGR33 dot-matrix graphics recorder
Resolution:	4x4 dots/mm
Speed:	1.5 mm/sec

The analog profiles are recorded on chart paper in the aircraft during the survey.

Digital Data Acquisition System

Manufacturer:	Scintrex/Picodas
Model:	PDAS-1000; Microprocessor-based
Recorder:	Internal 40 megabyte cassette drive; RMS GR-33
Manufacturer:	RMS Instruments
Model:	DGR 33
Recorder:	RMS TCR-12, 6400 bpi, tape cartridge recorder

Tracking Camera

Type:	Panasonic Video
Model:	AG 2400/WVCD132

Fiducial numbers are recorded continuously and are displayed on the margin of each image. Visual flight path recovery techniques were used to confirm the location of the helicopter where distinctive topographic features could be identified on the ground. This procedure ensures accurate correlation of analog and digital data with respect to visible features on the ground.

Navigation System (RT-DGPS)

Model:	Sercel NR106, Real-time differential positioning
Type:	SPS (L1 band), 10-channel, C/A code, 1575.42 MHz.
Sensitivity:	-132 dBm, 0.5 second update
Accuracy:	< 5 metres in differential mode, ± 50 metres in S/A (non differential) mode

The Global Positioning System (GPS) is a line of sight, satellite navigation system which utilizes time-coded signals from at least four of the twenty-four NAVSTAR satellites. In the differential mode, two GPS receivers are used. The base station unit is used as a reference which transmits real-time corrections to the mobile unit in the aircraft, via a UHF radio datalink. The on-board system calculates the flight path of the helicopter while providing real-time guidance. The raw XYZ data are recorded for both receivers, thereby permitting post-survey processing for accuracies of approximately 5 metres.

Although the base station receiver is able to calculate its own latitude and longitude, a higher degree of accuracy can be obtained if the reference unit is established on a known benchmark or triangulation point. The GPS records data relative to the WGS84 ellipsoid, which is the basis of the revised North American Datum (NAD83). Conversion software is used to transform the WGS84 coordinates to the system displayed on the base maps.

Helicopter

The system was installed in a Bell 206BIII turbine helicopter (Registration C-FFUJ) which was provided by National Helicopters Ltd. The helicopter flew at an average airspeed of 125 km/h with an average magnetic bird (sensor) height of 45 m.

Higher winds may cause the system to be grounded because excessive bird swinging produces difficulties in flying the helicopter. The swinging results from the area which is presented by the bird to broadside gusts.

Field Workstation

Manufacturer:	Dighem
Model:	FWS: V2.65
Type:	80486 based P.C.

A portable PC-based field workstation is used at the survey base to verify data quality and completeness. Flight tapes are dumped to a hard drive to permit the creation of a database. This process allows the field operators to display both the positional (flight path) and geophysical data on a screen or printer.

PRODUCTS AND PROCESSING TECHNIQUES

The following products are available from the survey data. Those which are not part of the survey contract may be acquired later. Refer to Table 3-1 for a summary of the maps which accompany this report, some of which may be sent under separate cover. Most parameters can be displayed as contours, profiles, or in colour.

Base Maps

Base maps of the survey area have been produced from published topographic maps. These provide a relatively accurate, distortion-free base which facilitates correlation of the navigation data to the UTM grid. Photomosaics are useful for visual reference and for subsequent flight path recovery, but usually contain scale distortions. Orthophotos are ideal, but their cost and the time required to produce them, usually precludes their use as base maps.

Table 3-1 Survey Products

1. Preliminary Products @ 1:25,000

   Total field magnetic contours.

2. Final Transparent Maps (+5 prints x 30 Map sheets) @ 1:20,000

   Total field magnetic contours with interpreted anomalies.

3. Colour Maps (3 sets x 30 Map sheets) @ 1:20,000

   Total field magnetics with interpreted anomalies.

4. Colour Maps (5 sets x 5 Map sheets) @ 1:50,000

   Total field magnetics (Trend removed) with interpreted anomalies.

5. Colour Maps (5 copies x 1 Map) @ 1:100,000

   Total field magnetics (Trend removed) with interpreted anomalies.

   Survey report (5 copies)
   Analog chart records
   Flight path video cassettes
   VISION software package

Note: Other products can be produced from existing survey data, if requested.

Total Field Magnetics

The aeromagnetic data are corrected for natural variations over time of the earth's magnetic field using the data from the stationary magnetic base station.

Magnetic Derivatives

The total field magnetic data may be subjected to a variety of processing techniques to enhance the data for various anomaly types:

first vertical derivative (vertical gradient)
second vertical derivative
magnetic susceptibility
reduction to the pole
upward/downward continuations
regional trend removal

All of these enhancement techniques improve the recognition and/or interpretation of near-surface magnetic bodies, with the exception of upward continuation. Any of these parameters can be produced on request.

For the purpose of this survey, regional trend removal was used to produce maps with reduced regional variation, so that the colour distribution is applied over a smaller range, enhancing the smaller, local anomalies.

Dighem's proprietary enhanced magnetic technique is designed to provide a general "all-purpose" map, combining the more useful features of the above parameters. This was used to generate some preliminary maps.

Contour, Colour and Shadow Map Displays

The geophysical data are interpolated onto a regular grid using a modified Akima spline technique. The resulting grid is suitable for generating contour maps of excellent quality. The grid cell size is usually 25% of the line interval.

Colour maps are produced by interpolating the grid down to the pixel size. The parameter is then incremented with respect to specific amplitude ranges to provide colour "contour" maps. Colour maps of the total magnetic field are particularly useful in defining the lithology of the survey area.

Shadow maps are generated by employing an artificial sun to cast shadows on a surface defined by the geophysical grid. There are many variations in the shadowing technique. These techniques may be applied to total field or enhanced magnetic data, magnetic derivatives, VLF, resistivity, etc. The shadow of the enhanced magnetic parameter is particularly suited for defining geological structures with sharper images and improved resolution.

SURVEY RESULTS

The survey results are presented on 30 separate map sheets for each parameter at a scale of 1:20,000.

The total field magnetic data have been presented as contours on the base maps using a contour interval of 0.5 nT where gradients permit. The data on this survey showed a very large regional trend, reflecting a source of crustal depth, the 600nT amplitude range of which dominates the data set. The effect of this trend on data presentation is to spread the colour distribution over the entire range of data, leaving very little distinction between the commonly 2nT anomalies of interest. This problem was corrected on the 1:20,000 scale maps, which only show a small portion of the regional variation, by using a unique colour distribution for each map sheet. This enhances the colour appearance of the anomalies, but the plots will not match in colour at their boundaries. (The normal procedure is to use a single-colour-per-value distribution over all maps.)

The 1:50,000 and 1:100,000 scale maps cover a larger area than the 1:20,000 maps, so the regional distribution becomes significant. To enhance the display of the anomalies the total field magnetic data have been processed to produce "Trend Removed" magnetic map(s). This procedure samples the broad shape of the magnetic background and removes a calculated smooth regional from the data. This lowers the data range across the entire survey area, and allows more colour and contours to be distributed to the anomalies. Trend removal does not increase or decrease the amplitude of the target anomalies above local background.

The magnetic results, in conjunction with the other geophysical parameters, should provide valuable information which can be used to effectively map the geology and structure in the survey areas.

ANOMALY SELECTION CRITERION

The interpretation was purely one of 'pipe selection' without inference of geology or structure.

The form of response considered were equidimensional "bullseye" anomalies in plan form, with moderate to high gradient, and moderate width. The 'priority' anomalies have been listed, however numerous (hundreds) smaller anomalies were also observed. These could be considered as secondary, for follow-up in areas that prove to be of greater interest.

Selection was based on the contour maps, however priority was assigned after examination of the profiles (Filtered, Residual, Raw and diurnal traces). Attributes considered important in assigning priority were:

1) Width of anomaly
2) Amplitude above the background
3) Isolation of response
4) Gradient
5) Shape
6) Plan form (preference to bullseye signatures)

Various cultural responses were known to occur in the area, many associated with oil and gas wells. Cultural probability has been assigned by comparison to known cultural responses, and proximity to areas of known culture.

The diurnal trace has been examined to ensure selected responses are not diurnal induced.

DESCRIPTIONS OF ANOMALIES

Appendix C contains a tabulation of various parameters for each selected anomaly. The parameters are as follows:

1. Line Number	Line and part number on which the anomaly occurs. For multiple line anomalies it is the central line, or the one on which the anomaly is predominant.

2. Fiducial	Time flag for the anomaly, in seconds after midnight, measured from the centre of the anomaly.
3. X co-ordinate	Easting, in UTM metres - Zone 11.
4. Y co-ordinate	Northing, in UTM metres - Zone 11.
5. Width	The approximate width of the anomaly (measured from 1:25,000 scale Residual Magnetic Contour Maps)
6. PC	The probability of the response being caused by culture. 1 = most probably culture 2 = some possibility of cultural origin 3 = probably not culture
7. Description	A brief description of the anomaly, taken primarily from profile form.
8. Priority	The priority assigned, assuming the response is not cultural.

1	= highest priority
2	= intermediate priority
3	= lowest priority of selected anomalies

CONCLUSIONS AND RECOMMENDATIONS

This report provides a brief description of the survey results and describes the equipment, procedures and logistics of the survey.

Every effort was made to exclude anomalies with visible cultural sources, but due to the numerous cultural features in the survey area, any interpreted anomalies which occur in close proximity to cultural sources should be confirmed as bedrock conductors prior to drilling.

Respectfully submitted,

DIGHEM

[redacted]

Greg Hodges
Geophysicist

GH/sdp

APPENDIX A

LIST OF PERSONNEL

The following personnel were involved in the acquisition, processing, interpretation and presentation of data, relating to a DIGHEM^{V} airborne geophysical survey carried out for Montello Resources, near Hinton Alberta.

Steve Kilty	Vice President, Operations
Greg Paleolog	Survey Operations Supervisor
Howard van Stone	Senior Geophysical Operator
Steve Hayward	Second Operator/Field Dataman
K.H. Jones	Pilot (National Helicopters Ltd.)
Ted Tyne	Data Processing Supervisor (Australia)
Brenda Sharp	Computer Processor (Australia)
Sue Jagger	Interpretation Geophysicist (Australia)
Greg Hodges	Report Preparation
Lyn Vanderstarren	Drafting Supervisor
Mike Armstrong	Draftsperson (CAD)
Susan Pothiah	Word Processing Operator
Albina Tonello	Secretary/Expeditor

The survey consisted of 21,500 km of coverage, flown from May 10, 1994 to July 3, 1994.

All personnel are employees of CGG Canada Ltd., except for the pilot who is an employee of National Helicopters Ltd.

DIGHEM

[redacted]

Greg Hodges
Geophysicist

GH/sdp

APPENDIX B

STATEMENT OF COST

Date: August 8, 1995

IN ACCOUNT WITH DIGHEM

To: Dighem flying of Agreement dated April 14, 1994, pertaining to an Airborne Geophysical Survey in the Hinton area, Alberta.

Survey Charges

21,500 km of flying @ $28.00/km	$602,000.00

Allocation of Costs

- Data Acquisition	(60%)
- Data Processing	(20%)
- Interpretation, Report and Maps	(20%)

DIGHEM

[redacted]

Greg Hodges
Geophysicist

GH/sdp

APPENDIX C

STATEMENT OF QUALIFICATIONS

I, D. Greg Hodges of the City of Mississauga, Province of Ontario, do hereby certify that:

1. I am a geophysicist, residing in Mississauga, Ontario.

2. I am a graduate of Queens University, with a B.Sc. (Hons), Geophysics (1980).

3. I have been actively and continuously engaged in geophysical exploration since 1980.

4. I was personally responsible for the preparation of this report, based on examination of the interpretation report and the geophysical data.

5. I have no direct or indirect financial interest in the property described in this report.

6. I am presently employed by Dighem, a division of CGG Canada Ltd.

[redacted]

D. Greg Hodges
Geophysicist

APPENDIX D

EM ANOMALY LIST

Multiple Line Anomalies

Line	Fid	X	Y	W	PC	Desc	Pry
1006 /1	55070	386806	6001402	800	3	Broad along line	2
1012 /0	14320	381064	6000191	250	1		2
1013 /0	21238	386619	5999979	400	3	Arcuate, double peaked	2
1015 /3	35673	379979	5999786	400	3	Bullseye, good amplitude	1
1015 /1	1768	382804	5999598	500	3	High amplitude, good shape	1
1025 /0	29869	429525	5997601	250	3	Double peaked	1
1033 /1	7415	423974	5996004	250	3	Double peaked, elongate	1
1034 /1	29809	428583	5995805	300	3	Broad	2
1045 /2	75200	429768	5993624	250	3	Low amplitude	3
1046 /1	7428	425974	5993404	350	3	Low amplitude	3
1112 /0	17755	439228	5980166	300	3	Within a zone of anomalies	1
1114 /0	18046	427478	5979793	250	3	Symmetrical, good amplitude, elongate	1
1128 /5	50100	429262	5977031	200	3	Symmetrical peak, near cluster of anomalies	1
1112 /0	22300	459088	5980205	400	3	Broad, double peaked anomaly	2
1113 /1	1007	459221	5980005	400	3		2
1132 /1	5367	485103	5976202	200	3	Near culture, elliptical	1
1137 /5	48964	445375	5975196	400	3	A wide response	1
1148 /5	50100	474556	5973000	150	3	Continues over six line	2
1157 /5	31752	489955	5971218	300	1	Symmetrical, good amplitude	1
1172 /1	41668	418453	5968193	250	3	Not a closure, low amplitude	3
1257 /5	8968	489469	5951220	150	3	Narrow, peaked	1
1259 /5	40790	472646	5950808	200	3	Symmetrical, good amplitude	1
1291 /0	49226	455199	5942010	200	1	Near cultural response	3
1303 /5	46905	426098	5944425	150	2	Shallow gradient	3
1290 /1	2181	448872	5944560	250	3	Elongate north-south	2
1296 /0	36630	453767	5943404	300	3	Bullseye, wide	1
1334 /0	1931	459595	5935793	300	3	Good amplitude, double peak, within cluster of anomalies	1
1348 /0	35511	456006	5932994	150	3	Moderate ampllitude, within cluster of anomalies	1
1280 /0	33658	487367	5946567	150	3	Small bullseye anomaly	3
1009 /0	2676	363957	6000829	200	2	At edge of arcuate structural feature	2
1014 /0	28244	362420	5999984	150	2	Small closure within gradient	3
1026 /1	71165	359913	5997403	100	1	Narrow dipole	3
1038 /0	32309	365924	5995011	250	3	Subtle response, elongate along line	3
1043 /0	9014	368076	5994019	350	3	Wide, flat anomaly	2
1047 /0	31688	366055	5993214	200	2	Dipole, steep	2
1012 /0	12825	374666	6000212	250	3	Low amplitude	3
1017 /0	5745	378996	5999172	150	1	Peaked, narrow	2
1021 /1	11175	382130	5998398	200	1	Within a line of anomalies, peaked with good amplitude	1
1026 /1	65340	381458	5997392	150	1	Within a line of anomalies	3

Single Line Anomalies

Line	Fid	X	Y	W	PC	Desc	Pry
1033 /0	16022	379652	5995986	100	1	Within a cluster of anomalies, narrow, peaked, with moderate amplitude	2
1033 /0	16150	379322	5995991	250	1	Within a cluster of anomalies, broad, good amplitude	2
1037 /0	40870	379075	5995210	100	1	Within a cluster of anomalies, narrow, good amplitude, dipole	3
1039 /0	18570	378522	5994811	100	1	Within a cluster of anomalies, narrow, peaked, good amplitude	3
1052 /0	21340	384606	5992214	350	3	Bullseye, moderate gradient	2
1037 /0	43926	391964	5995178	250	3	Poorly defined	3
1040 /1	43750	398328	5994609	150	1	Narrow, peaked, good amplitude	2
1016 /1	67673	422567	5999388	150	1	Narrow, peaked	1
1021 /0	71276	416604	5998406	200	3	May be structurally related, bullseye with a good shape in profile form	1
1026 /0	25547	422640	5997410	300	3	Moderate amplitude	2
1039 /1	48750	412650	5994791	200	3	Low amplitude, small closure	3
1041 /0	58596	410609	5994400	200	3	Narrow, peaked	3
1047 /1	15280	415702	5993203	150	1	Narrow, peaked	1
1036 /2	73672	433159	5995406	200	3	Small bullseye, low amplitude	3
1047 /1	10310	432931	5993196	100	1	Narrow, peaked	3
1087 /0	30482	423866	5985208	250	4	Extends to the northeast, low amplitude	3
1100 /0	38368	422336	5982591	150	1	Symmetrical, good amplitude	1
1119 /0	78450	418453	5978812	200	1	Low amplitude	3
1121 /0	35815	419129	5978412	300	1	Symmetrical	2
1127 /1	81450	427501	5977217	500	1	Wide	3
1150 /0	85287	429960	5972619	150	1	Symmetrical, good amplitude	3
1134 /0	21500	444972	5975784	200	2	Symmetrical, good amplitude	2
1147 /5	72756	435829	5973196	100	1	Symmetrical, good amplitude	2
1153 /1	30297	444787	5972001	150	1	Symmetrical, good amplitude	2
1158 /0	7070	438679	5971005	500	1	Wide, several peaks	3
1161 /1	35290	434393	5970415	100	1	Good amplitude	2
1119 /1	1979	468365	5978774	200	4	Circular	2
1119 /1	2661	471032	5978766	300	3	Isolated, at edge of deep circular feature	1
1122 /0	17400	476260	5978172	200	3	Elongate along flight line	3
1125 /5	48358	478812	5977614	100	1	Symmetrical, good amplitude	1
1126 /0	16640	479611	5977418	100	1	Symmetrical, good amplitude	1
1126 /0	16781	479117	5977440	150	1	Symmetrical, good amplitude	2

Single Line Anomalies

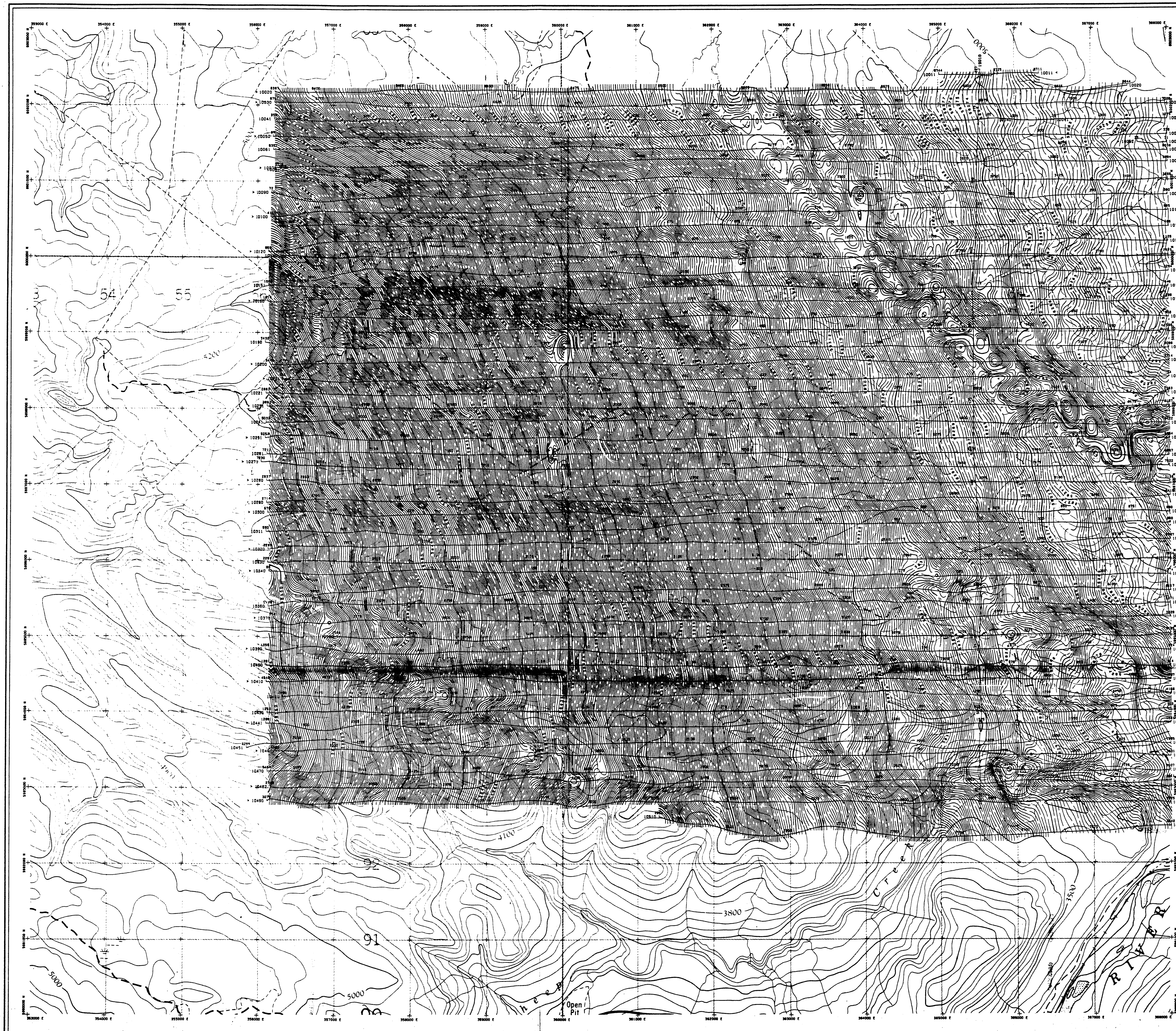
Line	Fid	X	Y	W	PC	Desc	Pry
1144 /2	16450	483260	5973595	100	1	Symmetrical, good amplitude	1
1156 /0	41240	477954	5971406	150	1	Symmetrical, good amplitude	1
1157 /5	28143	474610	5971203	100	1	Symmetrical	2
1160 /1	78198	474861	5970638	100	1	Symmetrical, good amplitude	1
1126 /0	13030	493503	5977467	250	1	Good amplitude	2
1252 /2	11630	423559	5952187	100	1	High amplitude, symmetrical	1
1180 /1	53210	434645	5966538	100	1	High amplitude, symmetrical	1
1219 /0	39890	441846	5958754	100	1	High amplitude, symmetrical	2
1244 /0	25120	440158	5953797	200	1	High amplitude, symmetrical	1
1173 /1	63855	416560	5967982	100	1	High amplitude, symmetrical	2
1164 /1	77270	450806	5969800	200	3	Small closure, moderate amplitude	2
1172 /0	65876	469061	5968197	350	3	Isolated bullseye, moderate amplitude	1
1192 /0	18152	465645	5964285	300	3	Moderate amplitude	2
1223 /2	71382	465774	5957936	200	3	Small closure, not evident on profiles	3
1227 /1	34693	468055	5957147	100	1	Good amplitude, symmetrical	2
1241 /3	68170	458609	5954394	100	1	Good amplitude, symmetrical	2
1241 /3	68262	458258	5954401	100	1	Good amplitude, symmetrical	2
1255 /1	23372	462736	5951620	100	1	Good amplitude, symmetrical	2
1191 /0	34346	470395	5964412	150	3	Bullseye anomaly - small	2
1174 /0	51720	472782	5967774	200	1	Symmetrical	1
1179 /0	12663	477211	5966809	100	1	Dipole	1
1182 /0	24236	482111	5966153	100	1	Good amplitude, symmetrical	1
1183 /0	12790	482206	5966037	100	1	Good ampllitude, symmetrical	1
1185 /0	85272	475127	5965578	100	1	Moderate amplitude	2
1207 /0	4332	474916	5961186	150	1	Good amplitude, symmetrical	1
1210 /0	4033	473926	5960586	100	3	Small bullseye anomaly, narrow	1
1220 /1	22936	479843	5958562	200	1	Good amplitude, symmetrical	1
1227 /1	32060	478231	5957143	100	1	Good amplitude, symmetrical	1
1232 /1	61120	477711	5956206	150	1	Good amplitude, symmetrical	1
1235 /3	27975	476961	5955597	100	1	Dipole	2
1237 /3	42115	489044	5954802	100	1	Moderate amplitude, symmetrical	2
1237 /3	42320	488374	5954804	100	1	Good amplitude, symmetrical	1
1237 /4	24730	482466	5955188	300	3	Low amplitude, broad	3
1242 /3	73800	475574	5954200	150	1	Low amplitude	3

Single Line Anomalies

Line	Fid	X	Y	W	PC	Desc	Pry
1257 /5	6436	479159	5951206	100	1	Good amplitude, symmetrical	1
1259 /5	39770	477185	5950809	100	1	Good amplitude, symmetrical	1
1259 /5	40980	471807	5950785	100	1	Good amplitude, symmetrical	1
1261 /5	15457	489693	5950363	200	3	Good amplitude, symmetrical	1
1242 /4	1097	490710	5954186	150	3	Moderate amplitude	2
1283 /2	51017	423583	5945975	150	2	Narrow, bullseye, good amplitude	1
1291 /0	49705	428174	5944401	100	2	Isolated, high amplitude	1
1274 /0	1900	447134	5947795	100	1	Symmetrical, good amplitude	1
1279 /0	47350	436470	5947145	200	1	Symmetrical, good amplitude	2
1279 /0	48850	442422	5947151	150	1	Symmetrical, good amplitude	1
1299 /0	39950	434602	5942786	100	2	Symmetrical, good amplitude	2
1292 /0	41145	446847	5944178	100	3	Small bullseye	1
1320 /3	23960	431093	5938602	200	3	Small bullseye within a cluster of responses, good amplitude	1
1320 /3	2435	432513	5938555	100	2	Symmetrical, good amplitude	1
1267 /4	2478	461921	5949225	100	1	Symmetrical, good amplitude	2
1274 /2	43485	461766	5947819	100	1	Symmetrical, good amplitude	1
1297 /0	18579	466246	5943162	200	3	Moderate amplitude	1
1318 /1	41080	467088	5939013	100	1	Symmetrical, good amplitude	1
1319 /0	23945	456970	5938821	100	1	Symmetrical, good amplitude	1
1336 /0	68336	468147	5935385	100	1	Symmetrical, good amplitude	1
1337 /0	75770	466649	5935227	100	1	Symmetrical, good amplitude	1
1341 /0	19600	464663	5934405	100	1	Symmetrical, good amplitude	1
1343 /0	42675	458679	5934008	200	1	Symmetrical, good amplitude	1
1344 /0	6475	465832	5933809	150	4	Symmetrical, good amplitude	2
1349 /0	2422	460676	5932790	200	3	Symmetrical, good amplitude	2
1264 /4	33715	471215	5949804	200	3	Good amplitude, within cluster of anomalies	1
1268 /6	8900	487135	5949006	150	1	Good amplitude, symmetrical	2
1269 /2	5785	470935	5948790	150	3	Good amplitude, bullseye anomaly, within cluster of anomalies	2
1272 /1	15355	471388	5948187	150	3	Good amplitude, bullseye anomaly, within cluster of anomalies	2

Single Line Anomalies

Line	Fid	X	Y	W	PC	Desc	Pry
1275 /1	29090	475086	5947601	100	1	Good amplitude, symmetrical	2
1279 /1	6060	475474	5946811	100	1	Good amplitude, symmetrical	2
1281 /0	25620	471714	5946399	100	1	Good amplitude, symmetrical	2
1282 /0	15650	471332	5946153	100	1	Good amplitude, symmetrical	2
1286 /0	8880	475134	5945380	100	1	Good amplitude, symmetrical	2
1296 /0	30390	475962	5943394	100	1	Good amplitude, symmetrical	3
1303 /0	25800	483629	5941980	150	1	Good amplitude, symmetrical	2
1319 /0	20290	470742	5938733	150	1	Good amplitude, symmetrical	2
1318 /1	47362	492824	5939006	200	3	Moderate amplitude	3
1326 /1	79468	492181	5937395	200	3	Moderate amplitude	3
1326 /1	79557	492575	5937383	200	3	Moderate amplitude	3



TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m
	Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 WIDTH OF ANOMALY IN METRES	1	400
	2	
	3	

PROBABILITY OF CULTURE
3 - low
2 - medium
1 - high

FLIGHT LINES

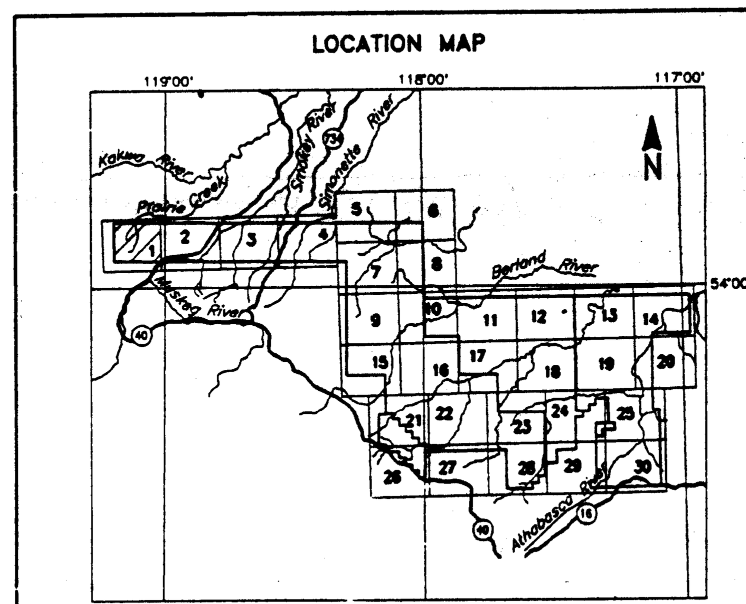
13010
13020
250
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

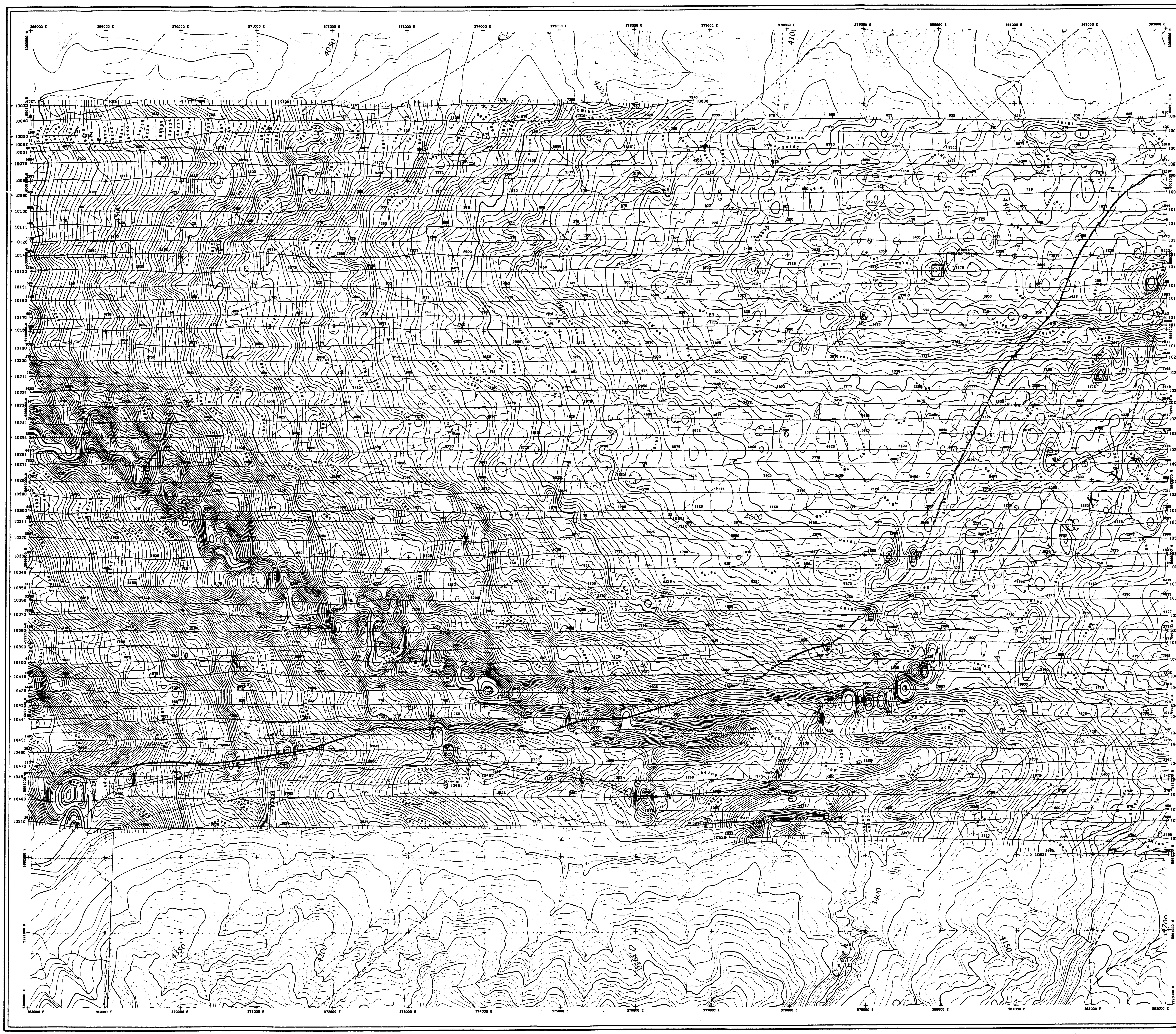
TOTAL FIELD MAGNETICS

DIGHEM SURVEY	NTS: see above	GEOPHYSICIST: G
DATE: JULY, 1994	JOB: 1179	SHEET: 1

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation . . . . Sercel real time differential GPS positioning
Data reduction grid interval . . . . 50 metres
Terrain clearance . . . . Helicopter 60 m
Magnetometer 40 m
Data sampling interval . . . . 0.1 second
Magnetometer / sensitivity . . . . . Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 WIDTH OF ANOMALY IN METRES	1	400 PROBABILITY OF CULTURE 3 - low 2 - medium 1 - high
	2	
	3	

FLIGHT LINES

13010
13020

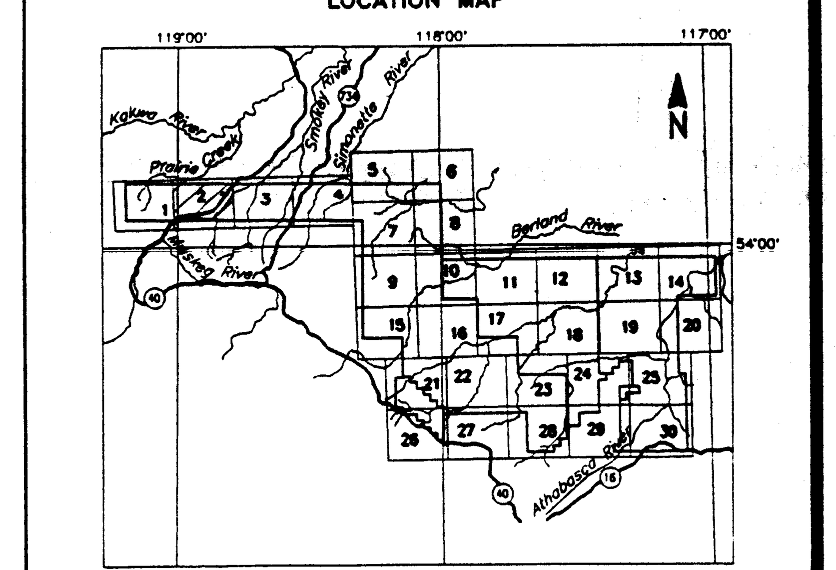
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles
250

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3
UTM Zone: 11
SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

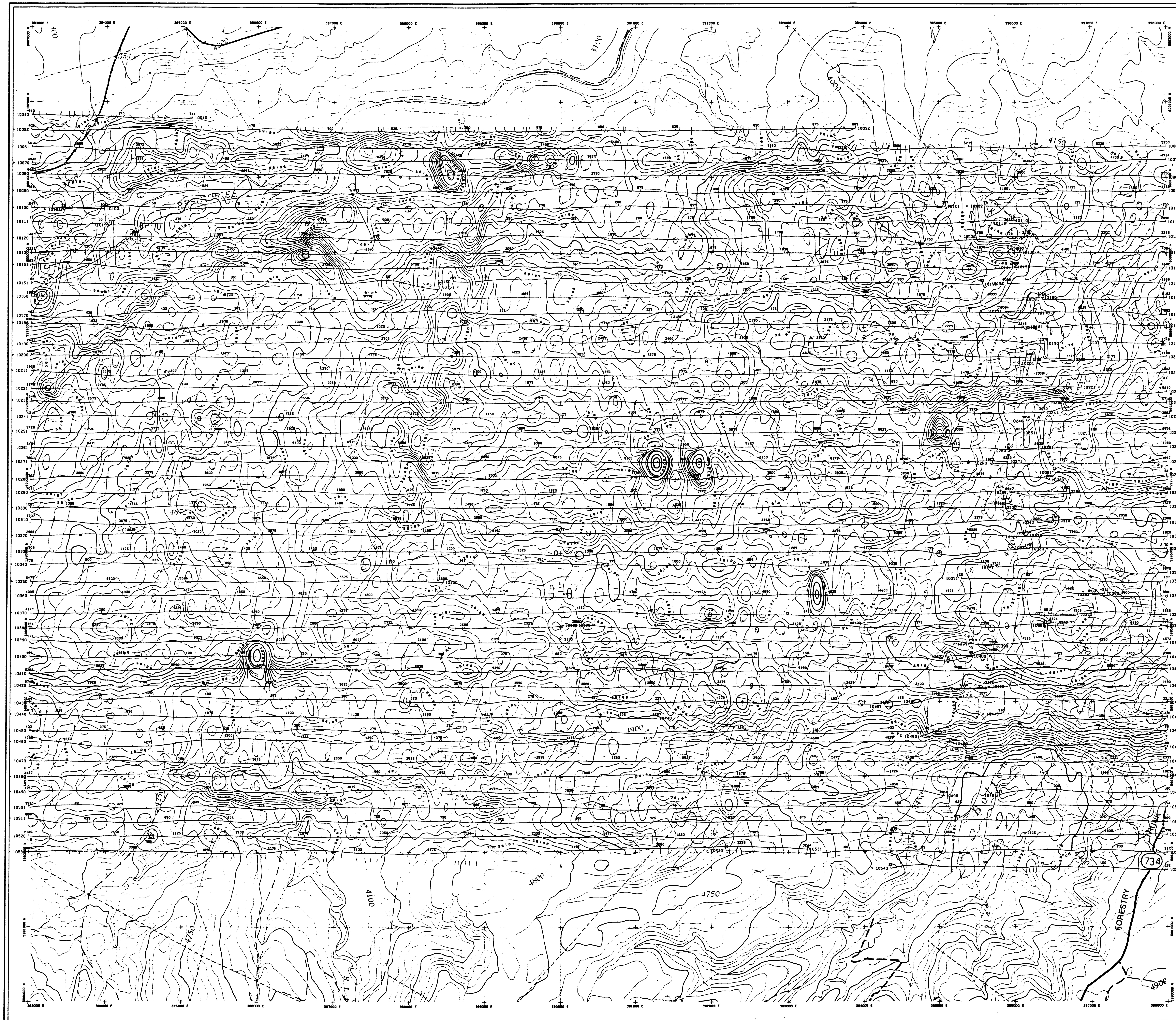
TOTAL FIELD MAGNETICS

DIGHEM V SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 2

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
△ 200 — WIDTH OF ANOMALY IN METRES	1	□ 400 — PROBABILITY OF CULTURE: 3 - low, 2 - medium, 1 - high
△	2	□
△	3	□

FLIGHT LINES

13010
13020

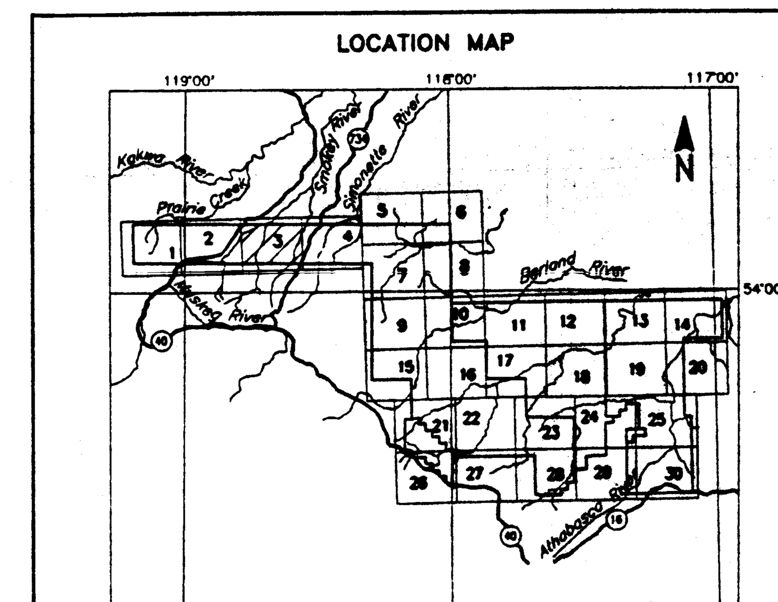
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles
250

TOTAL FIELD MAGNETIC CONTOURS

———	25.0 nT
———	5.0 nT
———	1.0 nT
— — —	0.5 nT
⬭	magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 | UTM Zone: 11 | SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM* SURVEY	NTS: see above	GEOPHYSICIST: G
DATE: JULY, 1994	JOB: 1179	SHEET: 3

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
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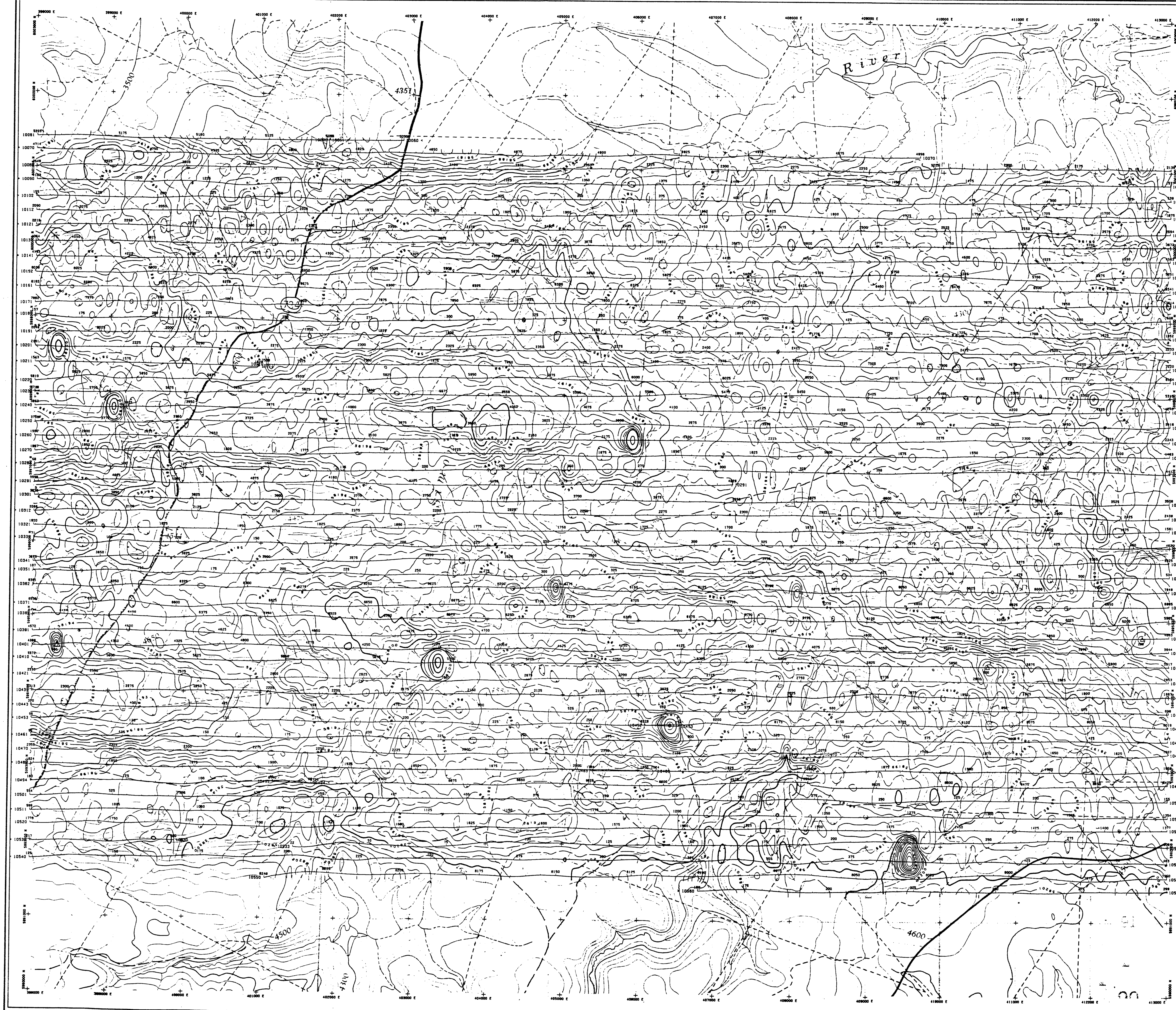


TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m
	Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
△ 1, 200	1	□ 2, 400
△	2	□
△	3	□

WIDTH OF ANOMALY IN METRES

PROBABILITY OF CULTURE
3 – low
2 – medium
1 – high

FLIGHT LINES

13010
13020
250

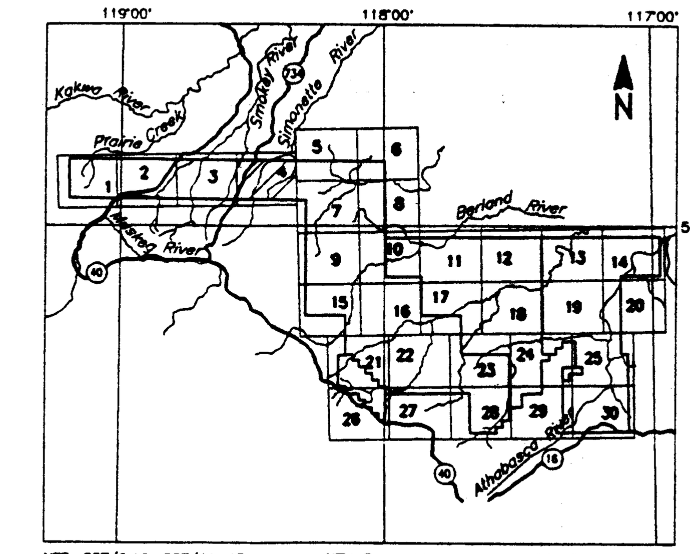
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

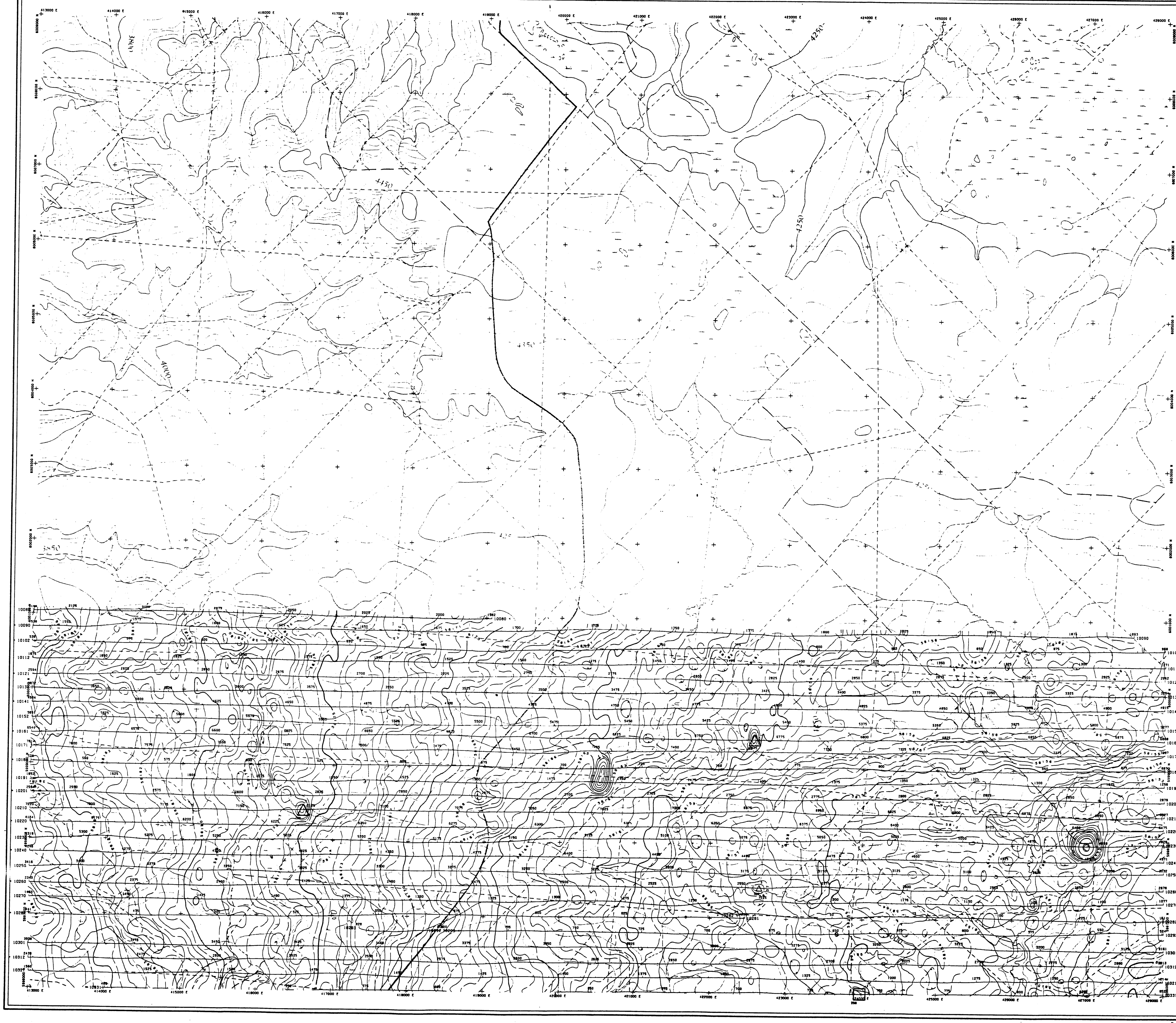
TOTAL FIELD MAGNETICS

DIGHEM * SURVEY	NTS: see above	GEOPHYSICIST: G
DATE: JULY, 1994	JOB: 1179	SHEET: 4

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 — WIDTH OF ANOMALY IN METRES	1	400 — PROBABILITY OF CULTURE: 3 - low, 2 - medium, 1 - high
	2	
	3	

FLIGHT LINES

13010
13020
250

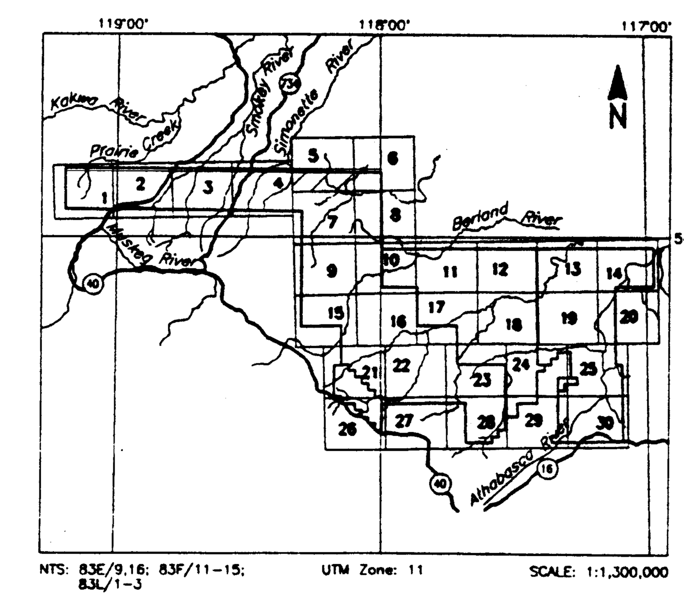
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

25.0 nT
5.0 nT
1.0 nT
0.5 nT
magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 — UTM Zone: 11 — SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

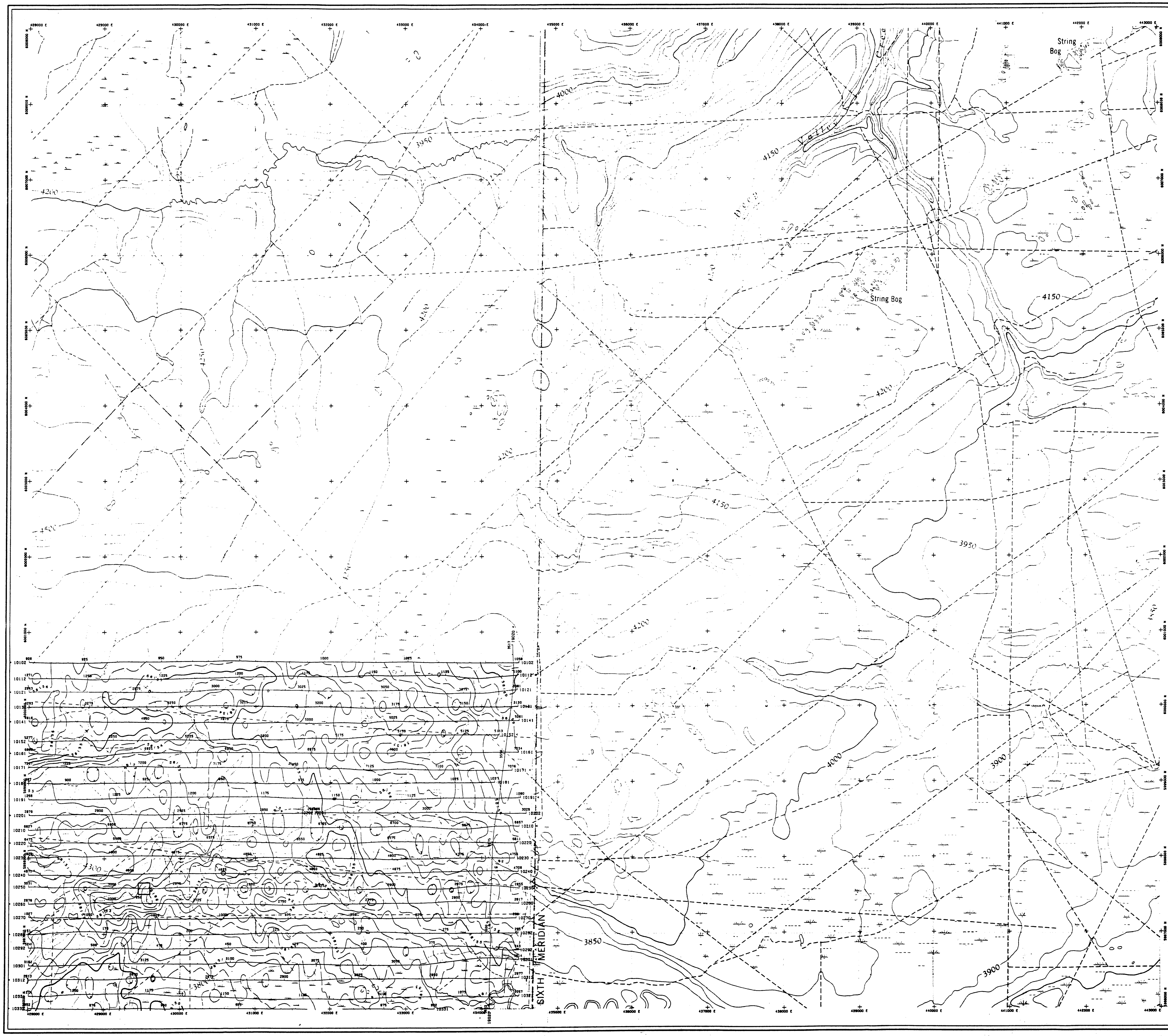
TOTAL FIELD MAGNETICS

DIGHEM SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 5

DIGHEM, A division of CGG Canada Ltd.

0 — 1 — 2 Km
Scale 1:20 000

DIGHEM
Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation . . . . Sercel real time differential GPS positioning
Data reduction grid interval . . . . 50 metres
Terrain clearance . . . . Helicopter 60 m
Magnetometer 40 m
Data sampling interval . . . . 0.1 second
Magnetometer / sensitivity . . . . . Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 — WIDTH OF ANOMALY IN METRES	1	400 — PROBABILITY OF CULTURE: 3 - low, 2 - medium, 1 - high
	2	
	3	

FLIGHT LINES

13010
13020
250

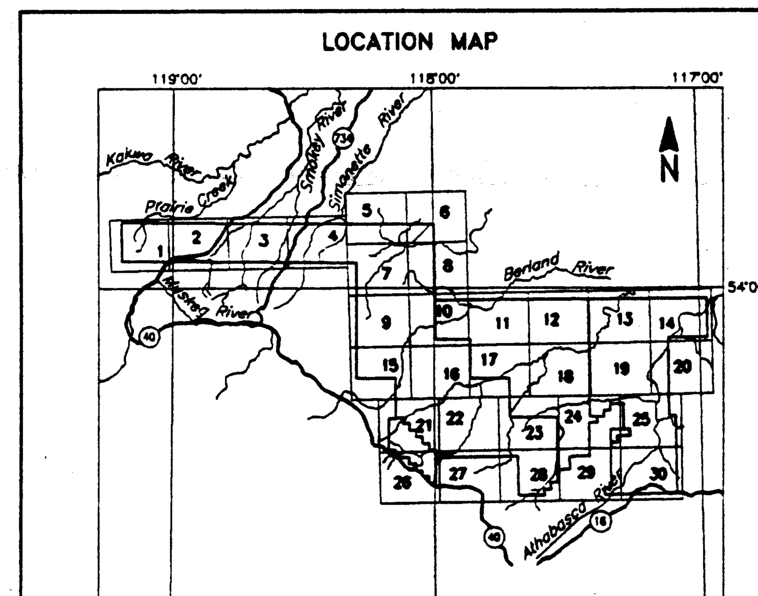
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

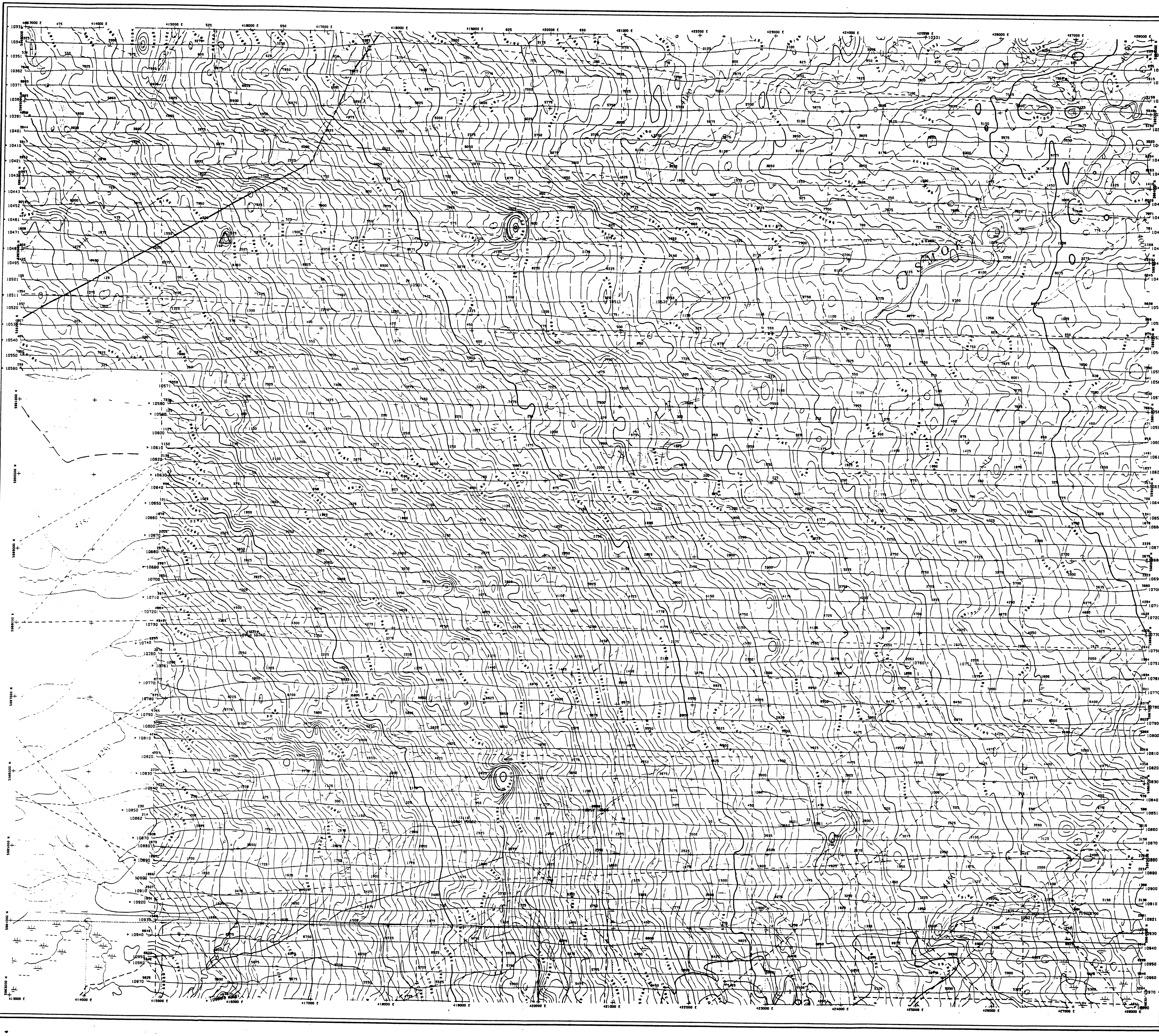
TOTAL FIELD MAGNETICS

DIGHEM[V] SURVEY	NTS: see above	GEOPHYSICIST: G
DATE: JULY, 1994	JOB: 1179	SHEET: 6

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation . . . . Sercel real time differential GPS positioning
Data reduction grid interval . . . . 50 metres
Terrain clearance . . . . Helicopter 60 m
Magnetometer 40 m
Data sampling interval . . . . 0.1 second
Magnetometer / sensitivity . . . . . Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 — WIDTH OF ANOMALY IN METRES	1	400 — 2 PROBABILITY OF CULTURE: 3 - low, 2 - medium, 1 - high
	2	
	3	

FLIGHT LINES

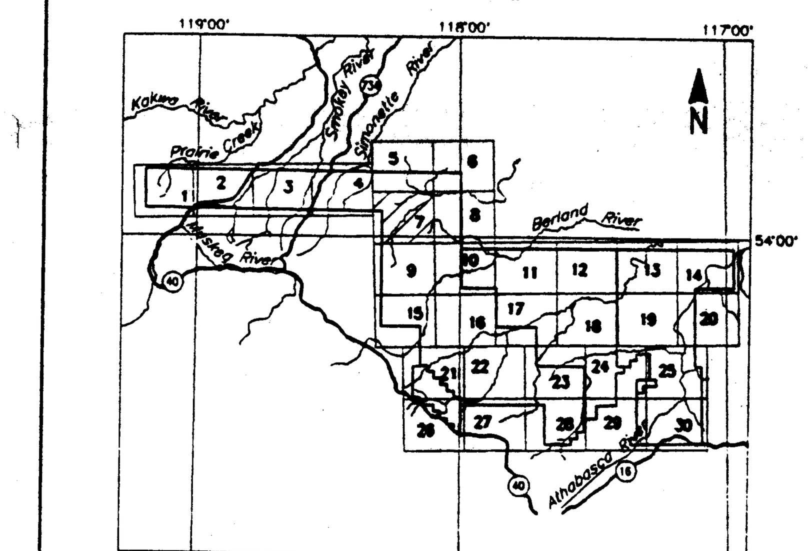
13010
13020
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
250
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

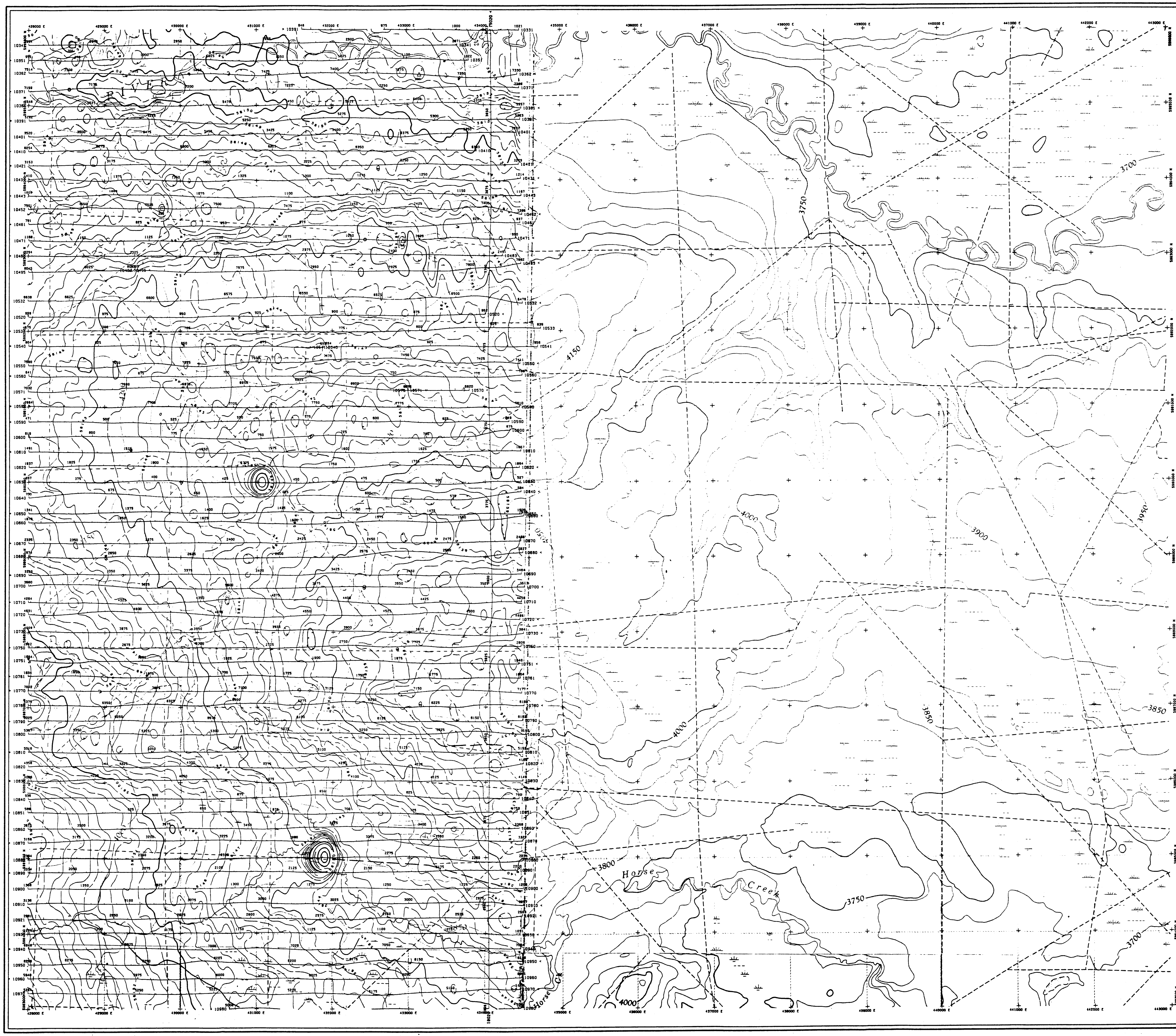
TOTAL FIELD MAGNETICS

DIGHEM SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 7

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20,000

DIGHEM
Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation . . . . Sercel real time differential GPS positioning
Data reduction grid interval . . . . 50 metres
Terrain clearance . . . . Helicopter 60 m
Magnetometer 40 m
Data sampling interval . . . . 0.1 second
Magnetometer / sensitivity . . . . . Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE — PRIORITY — MULTIPLE LINE

200 WIDTH OF ANOMALY IN METRES

PRIORITY 1, 2, 3

400

PROBABILITY OF CULTURE
3 – low
2 – medium
1 – high

FLIGHT LINES

13010
13020

Flight direction

Flight line number

11020

Reflight Number
Line Number
Area Number

250

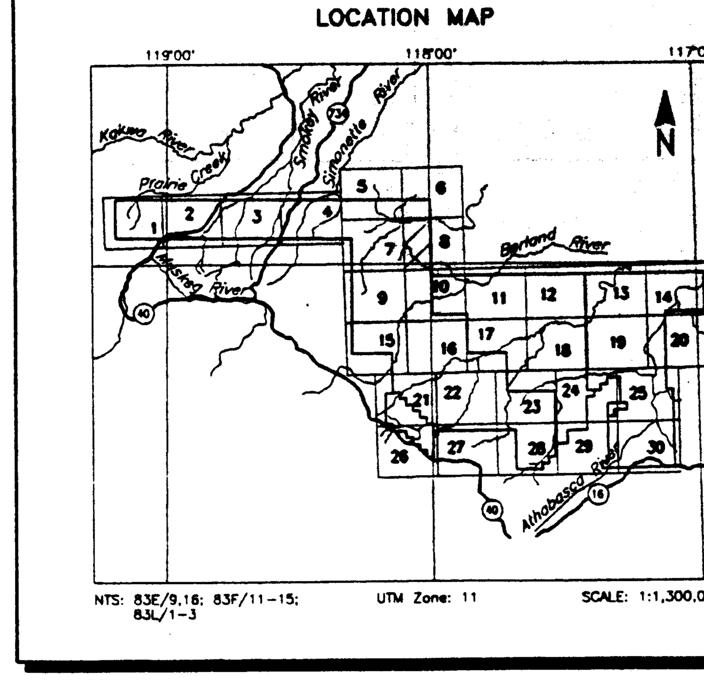
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11–15; 83L/1–3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

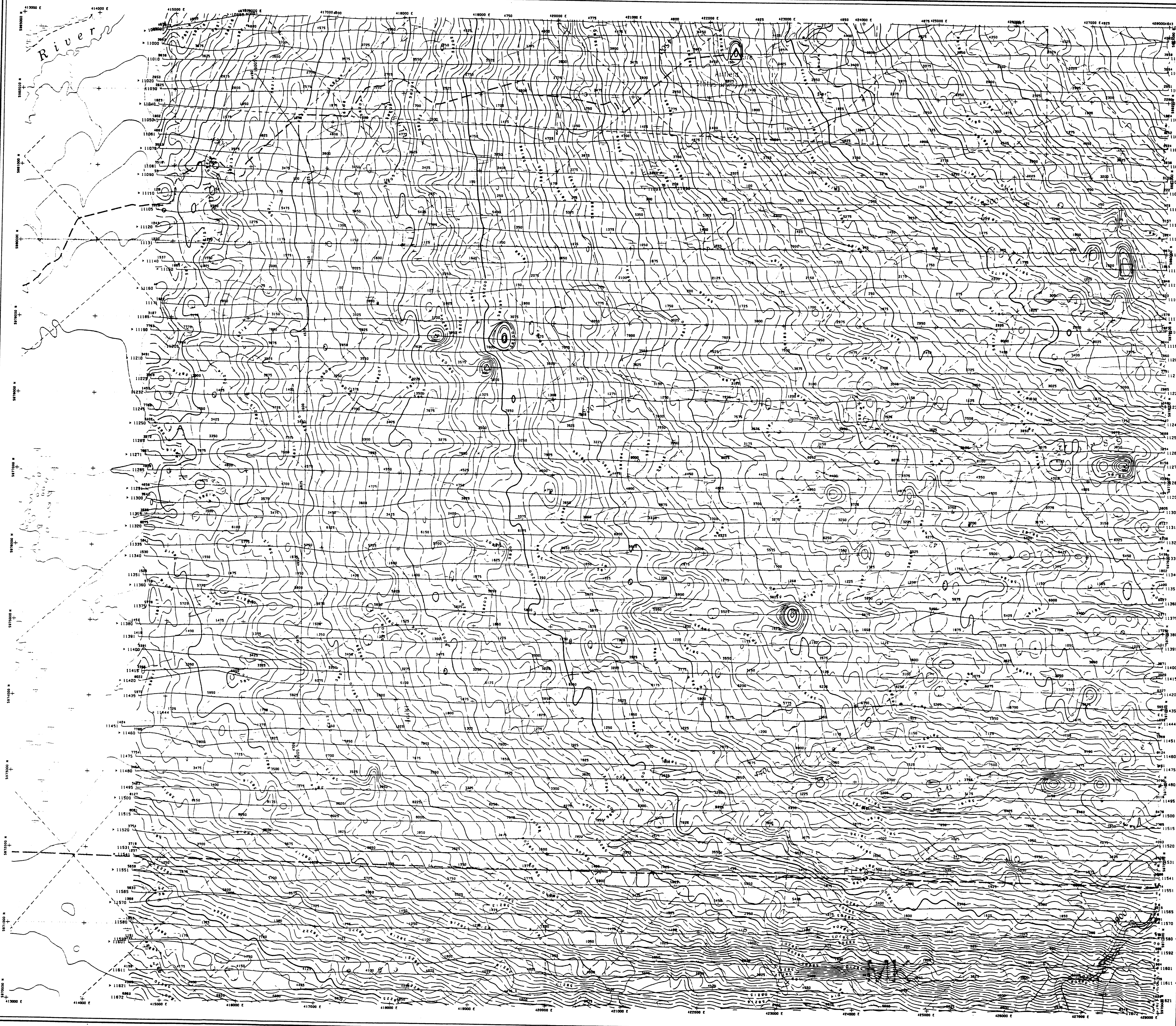
TOTAL FIELD MAGNETICS

DIGHEM SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 8

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation . . . . Sercel real time differential GPS positioning
Data reduction grid interval . . . . 50 metres
Terrain clearance . . . . Helicopter 60 m
Magnetometer 40 m
Data sampling interval . . . . 0.1 second
Magnetometer / sensitivity . . . . . Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 — WIDTH OF ANOMALY IN METRES	1	400 — 2 PROBABILITY OF CULTURE: 3 - low, 2 - medium, 1 - high
	2	
	3	

FLIGHT LINES

13010
13020

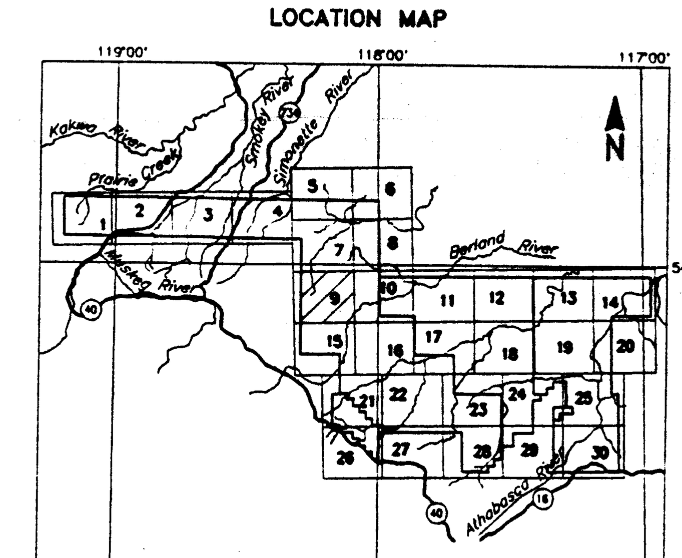
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
250
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM* SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 9

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
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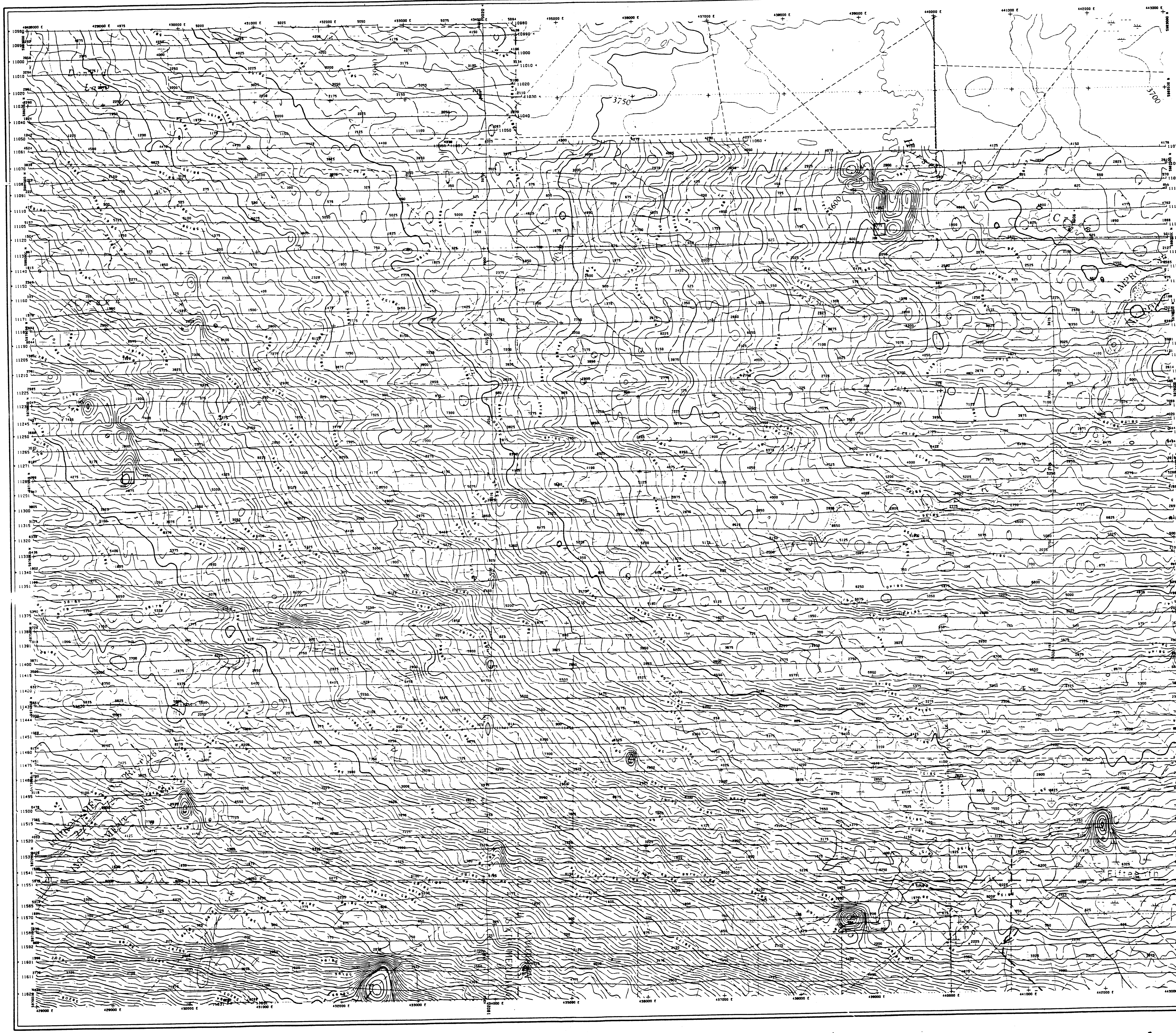


TECHNICAL SUMMARY

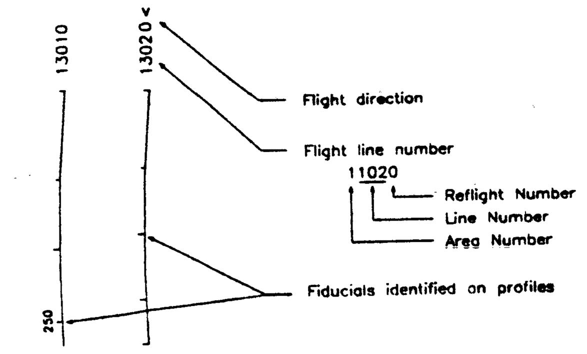
Navigation . . . . Sercel real time differential GPS positioning
Data reduction grid interval . . . . 50 metres
Terrain clearance . . . . Helicopter 60 m
Magnetometer 40 m
Data sampling interval . . . . . . 0.1 second
Magnetometer / sensitivity . . . . Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 WIDTH OF ANOMALY IN METRES	1	400
	2	
	3	

PROBABILITY OF CULTURE
3 – low
2 – medium
1 – high

FLIGHT LINES

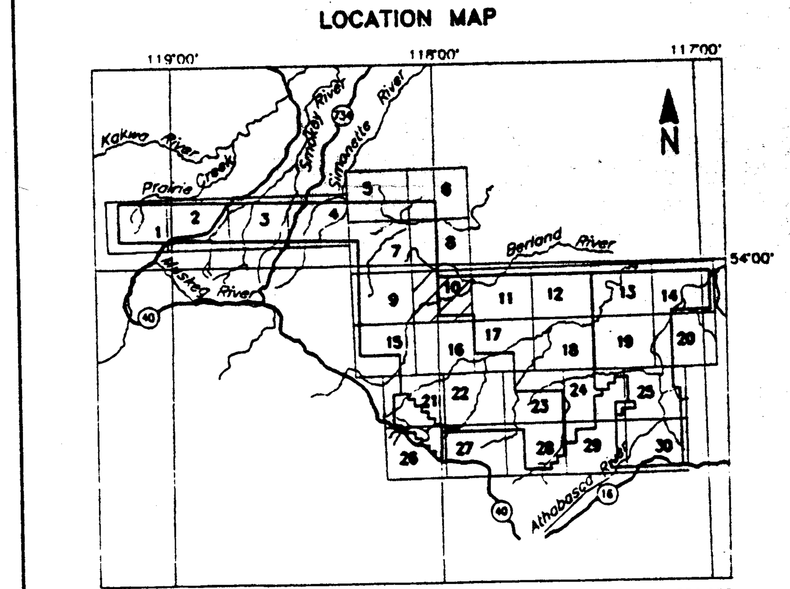


TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM* SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 10

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
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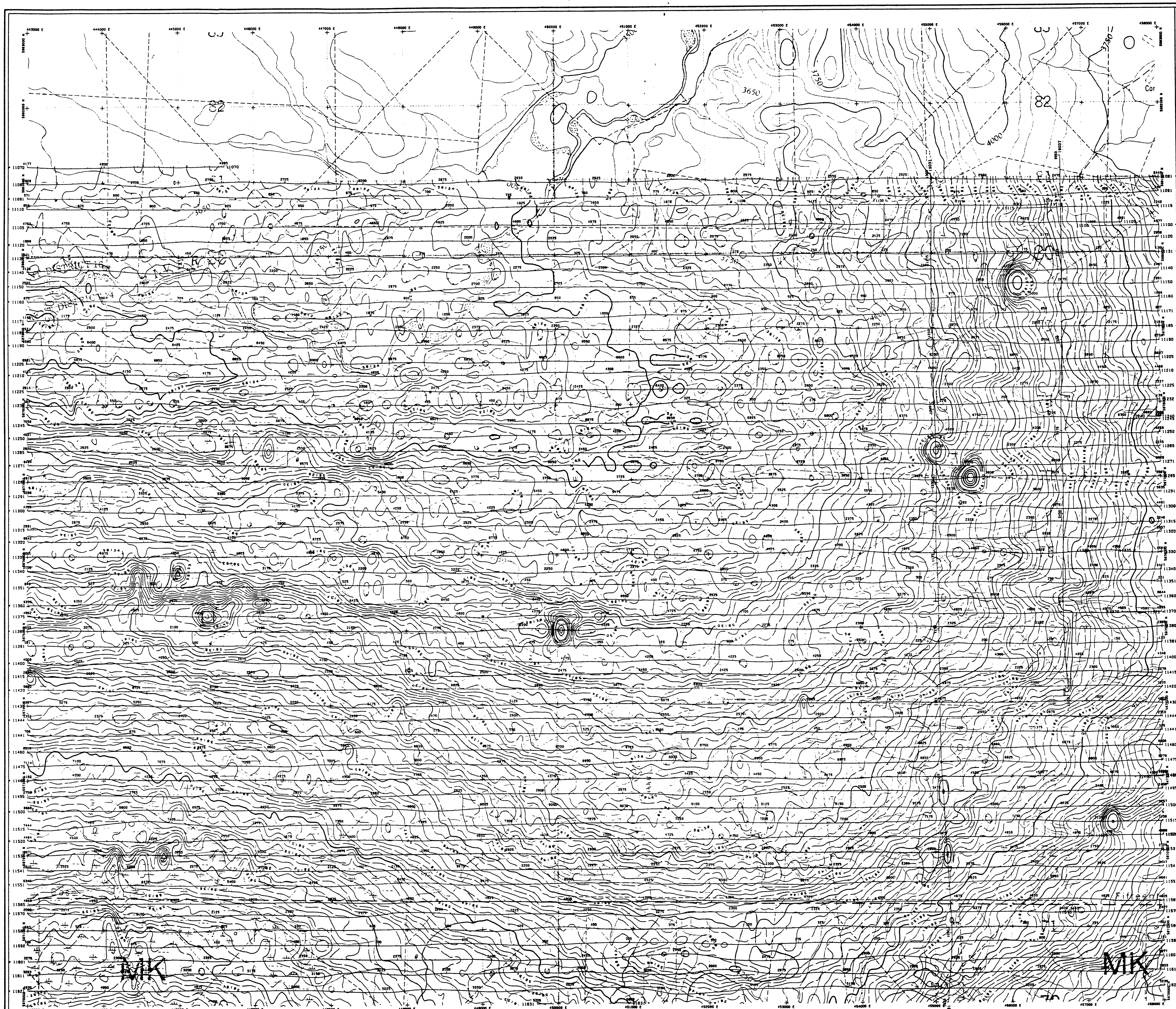


TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m
	Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 WIDTH OF ANOMALY IN METRES	1	400
	2	
	3	

PROBABILITY OF CULTURE
3 – low
2 – medium
1 – high

FLIGHT LINES

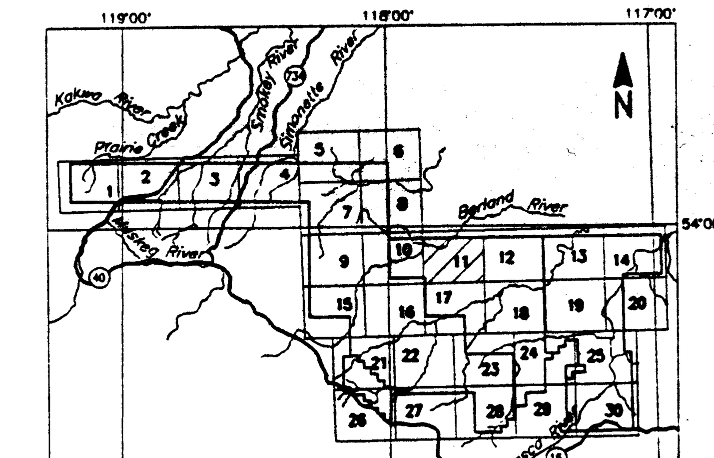
13010
13020
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
250
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

.... 25.0 nT
.... 5.0 nT
.... 1.0 nT
.... 0.5 nT
.... magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11–15; 83L/1–3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

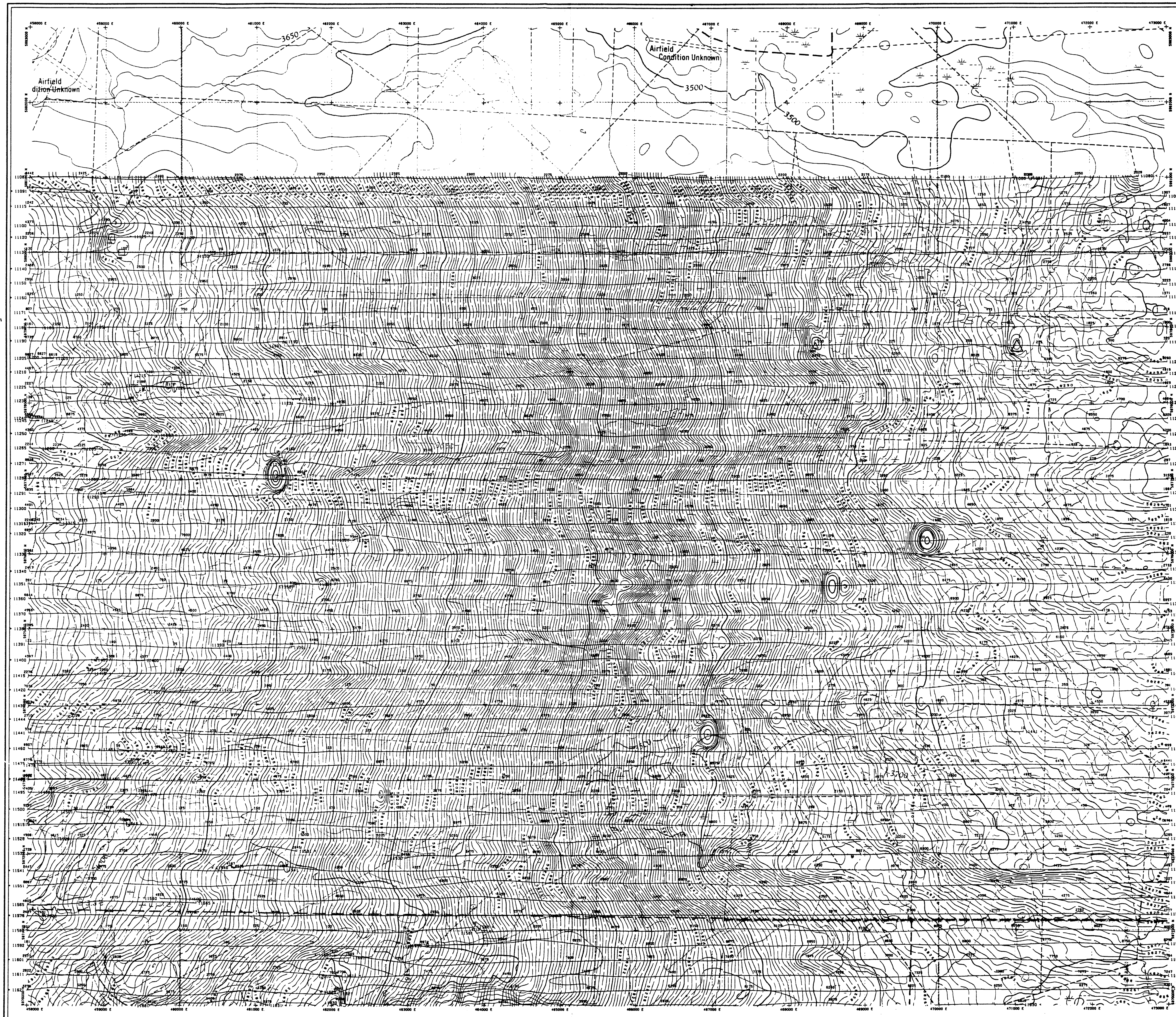
TOTAL FIELD MAGNETICS

DIGHEM * SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 11

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m
	Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
1, 200	1	2, 400
WIDTH OF ANOMALY IN METRES	2	
	3	

PROBABILITY OF CULTURE
3 – low
2 – medium
1 – high

FLIGHT LINES

13010
13020 <
250

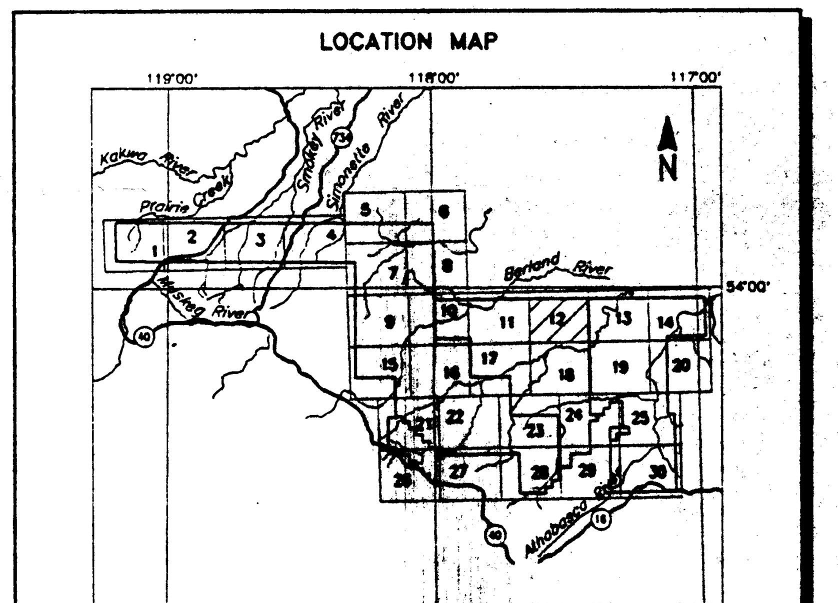
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11–15; 83L/1–3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM[v] SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 12

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
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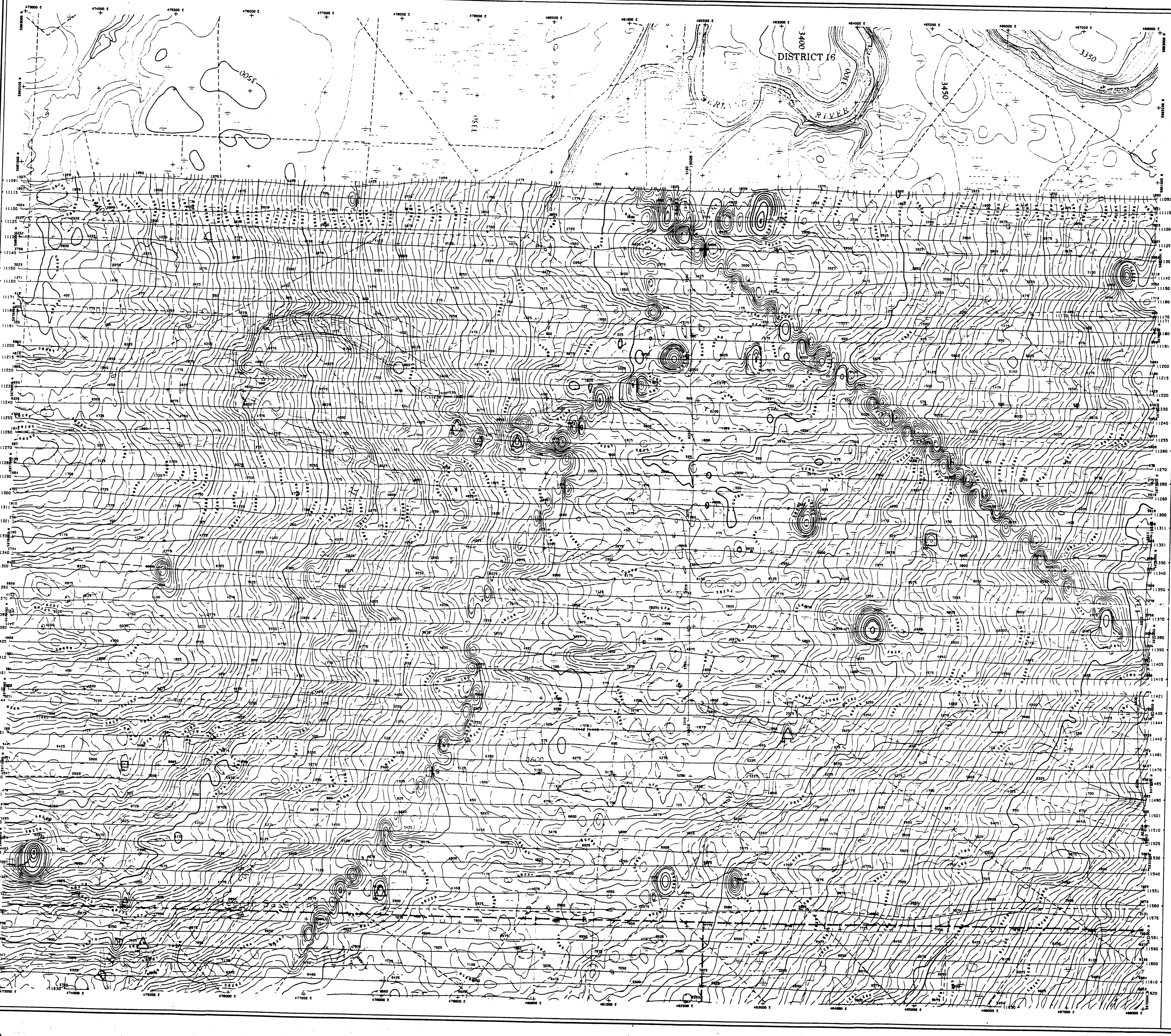


TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE — PRIORITY — MULTIPLE LINE

1 — 200 WIDTH OF ANOMALY IN METRES — 400 — 2 PROBABILITY OF CULTURE

3 - low
2 - medium
1 - high

Priority 1, 2, 3

FLIGHT LINES

13010 13020

Flight direction

Flight line number

11020

Reflight Number
Line Number
Area Number

250

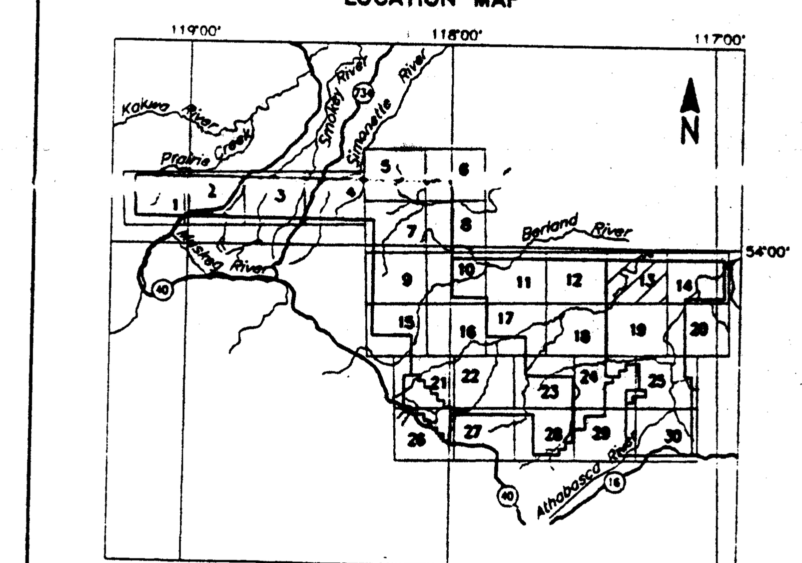
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

25.0 nT
5.0 nT
1.0 nT
0.5 nT
magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 — UTM Zone: 11 — SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.

HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM SURVEY	NTS: see above	GEOPHYSICIST: G
DATE: JULY, 1994	JOB: 1179	SHEET: 13

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km

Scale 1:20 000

DIGHEM

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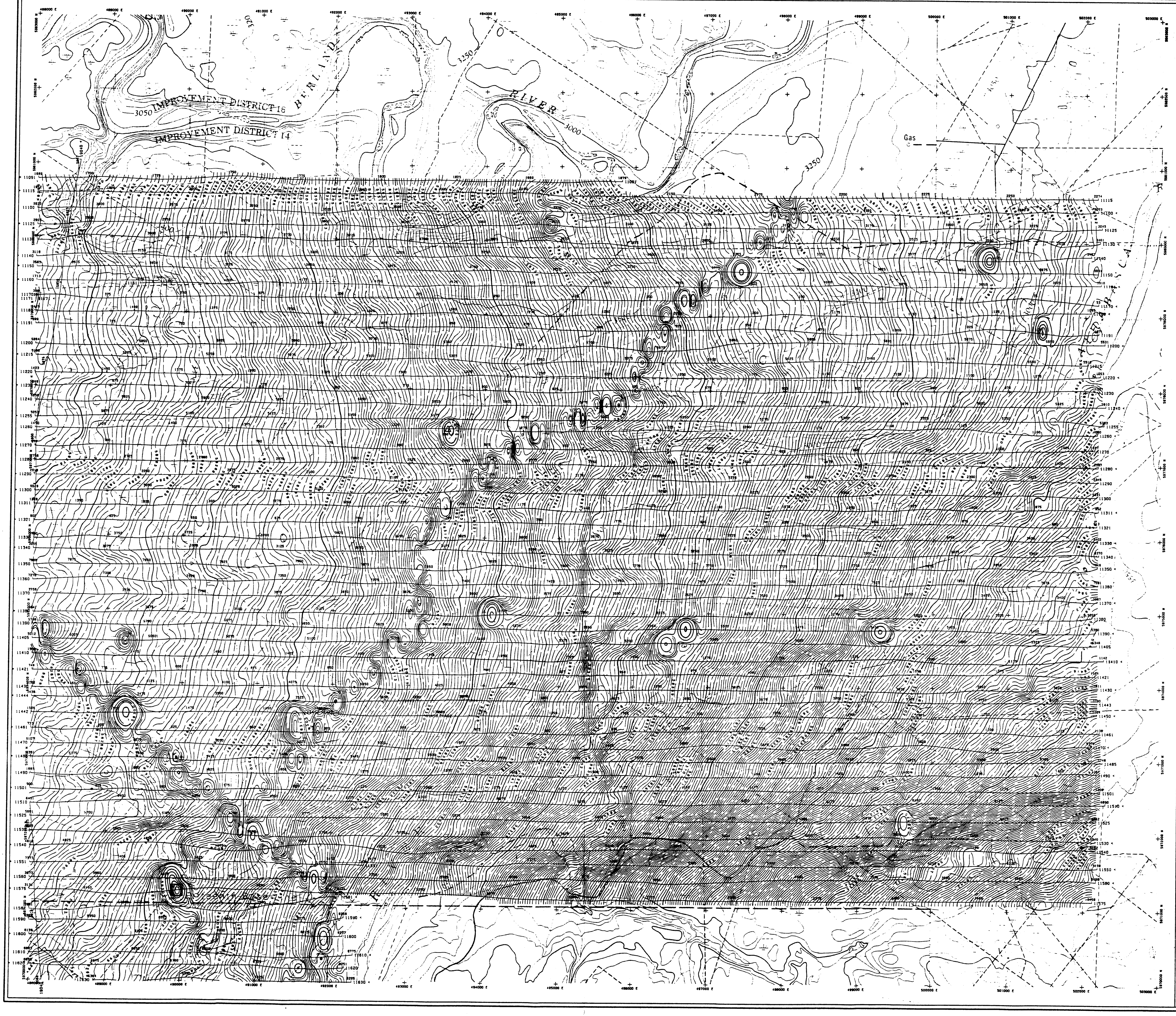


TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m
	Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
△ 200	1	□ 400
△	2	□
△	3	□

WIDTH OF ANOMALY IN METRES

PROBABILITY OF CULTURE
3 – low
2 – medium
1 – high

FLIGHT LINES

13010
13020
250

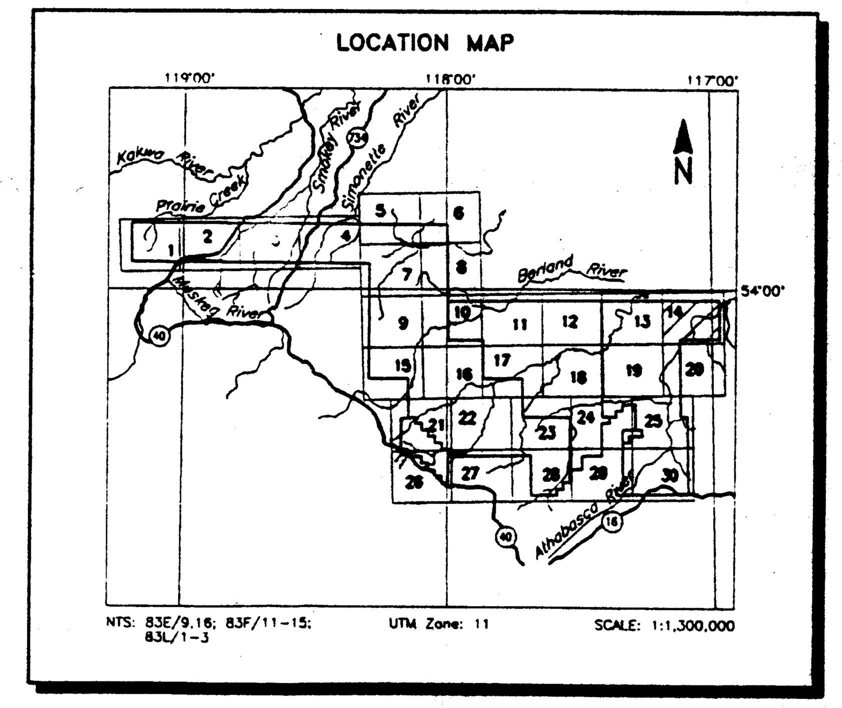
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

25.0 nT
5.0 nT
1.0 nT
0.5 nT
magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11–15; 83L/1–3 | UTM Zone: 11 | SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM* SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 14

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

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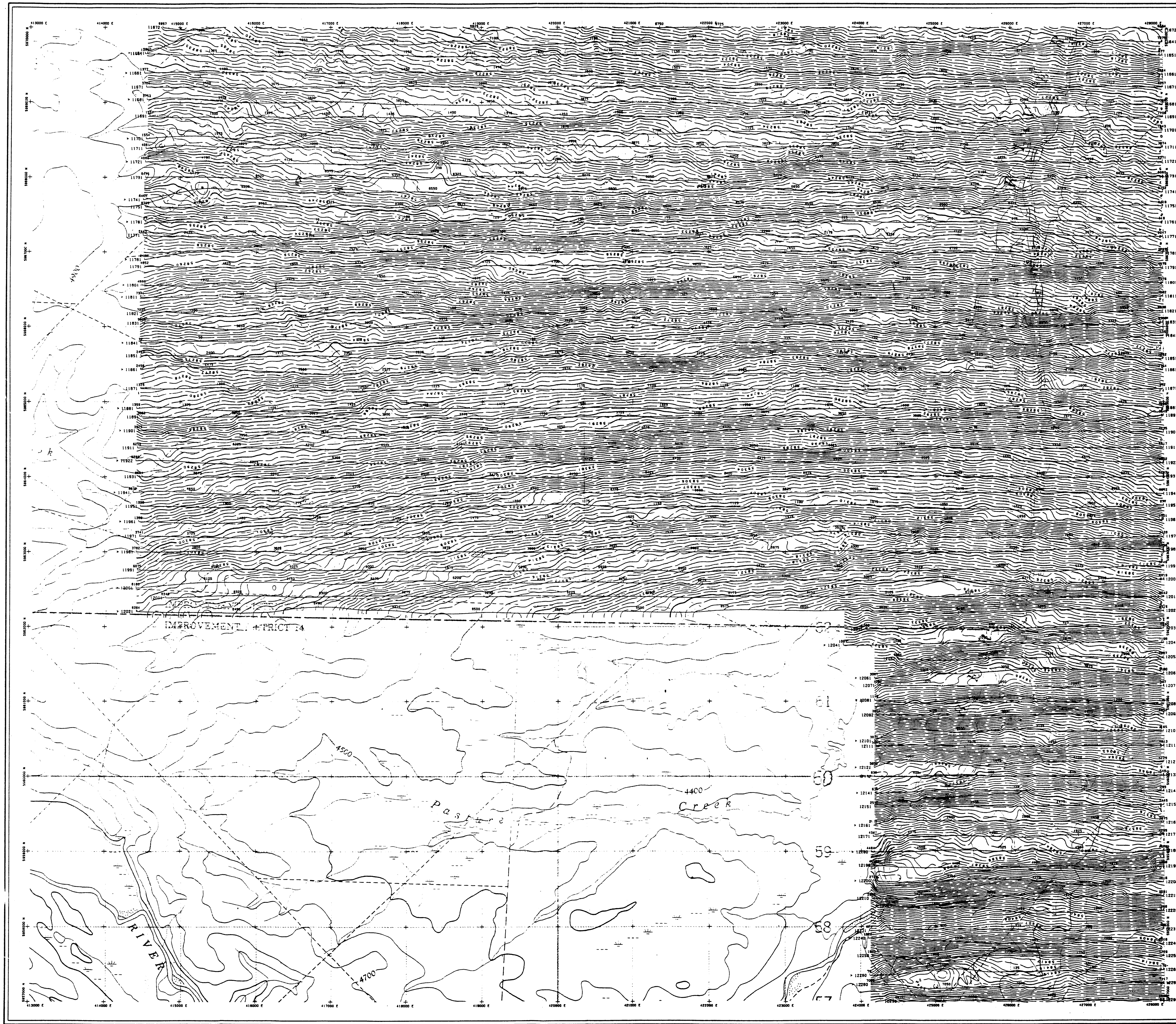


TECHNICAL SUMMARY

Navigation . . . . Sercel real time differential GPS positioning
Data reduction grid interval . . . . 50 metres
Terrain clearance . . . . Helicopter 60 m
Magnetometer 40 m
Data sampling interval . . . . 0.1 second
Magnetometer / sensitivity . . . . . Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 WIDTH OF ANOMALY IN METRES	1	400 PROBABILITY OF CULTURE 3 - low 2 - medium 1 - high
	2	
	3	

FLIGHT LINES

13010
13020

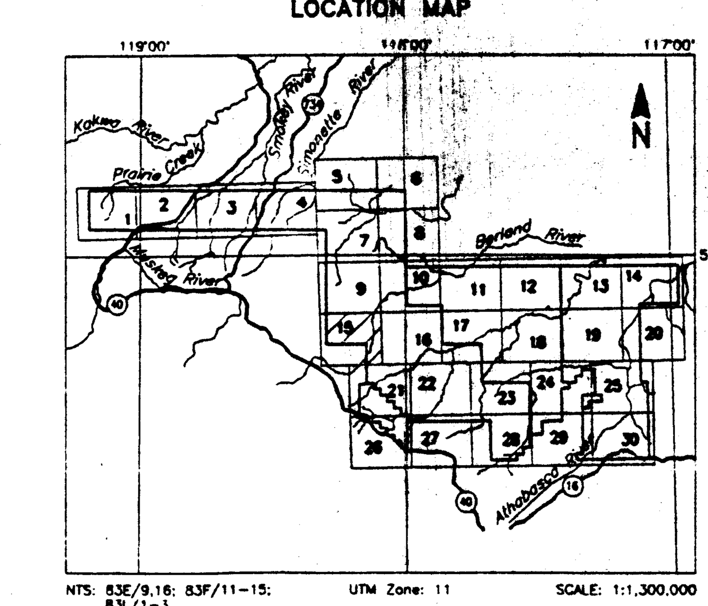
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles
250

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3
UTM Zone: 11
SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM[V] SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 15

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
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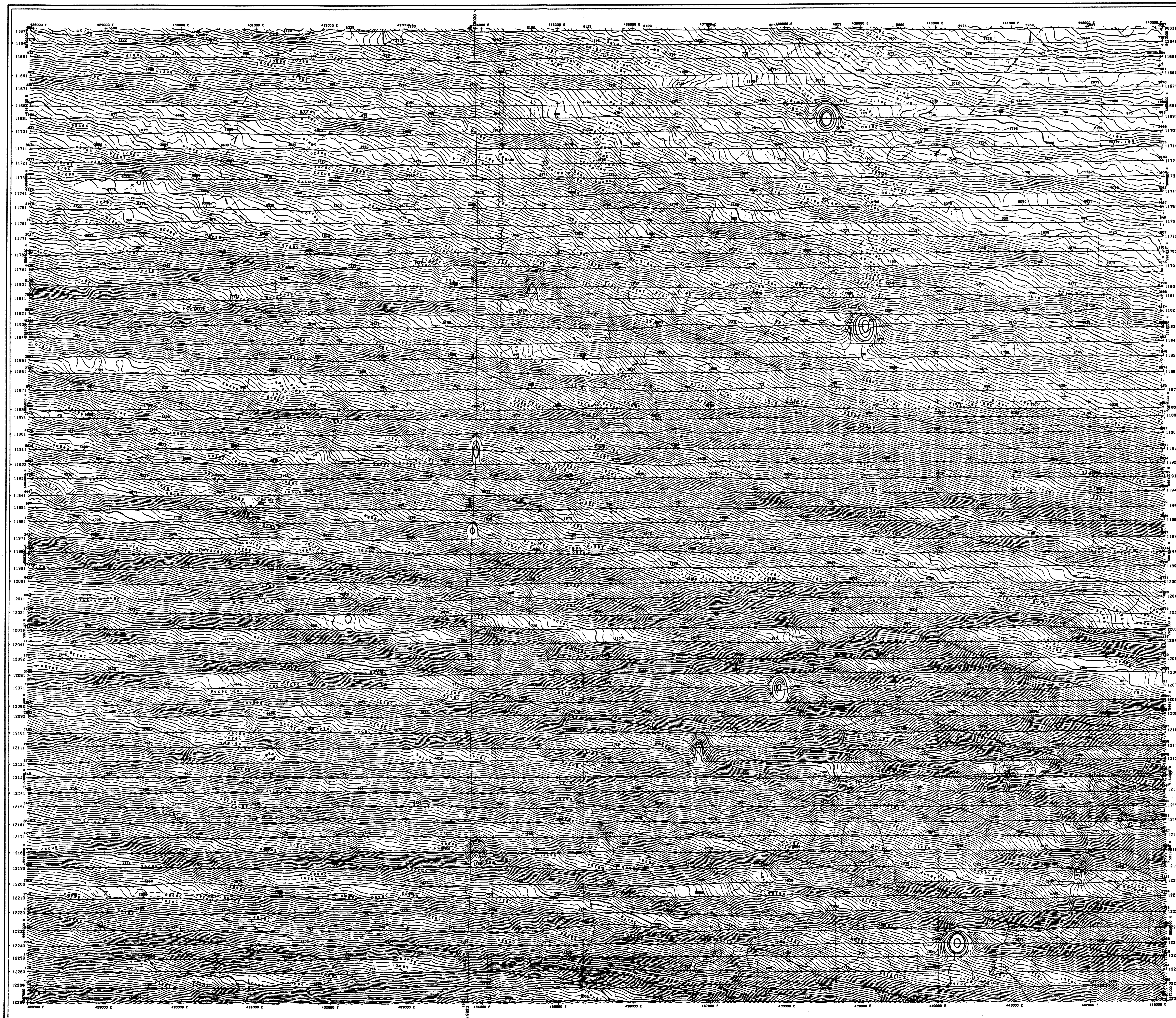


TECHNICAL SUMMARY

Navigation . . . . Sercel real time differential GPS positioning
Data reduction grid interval . . . . 50 metres
Terrain clearance . . . . Helicopter 60 m
Magnetometer 40 m
Data sampling interval . . . . 0.1 second
Magnetometer / sensitivity . . . . . Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 — WIDTH OF ANOMALY IN METRES	1	400 — 2 PROBABILITY OF CULTURE: 3 - low, 2 - medium, 1 - high
	2	
	3	

FLIGHT LINES

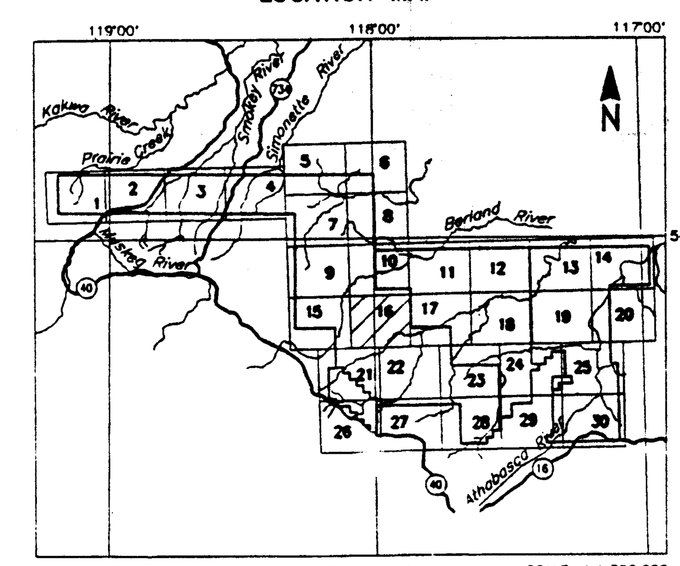
13010
13020
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles
250

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3
UTM Zone: 11
SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM[v] SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 16

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
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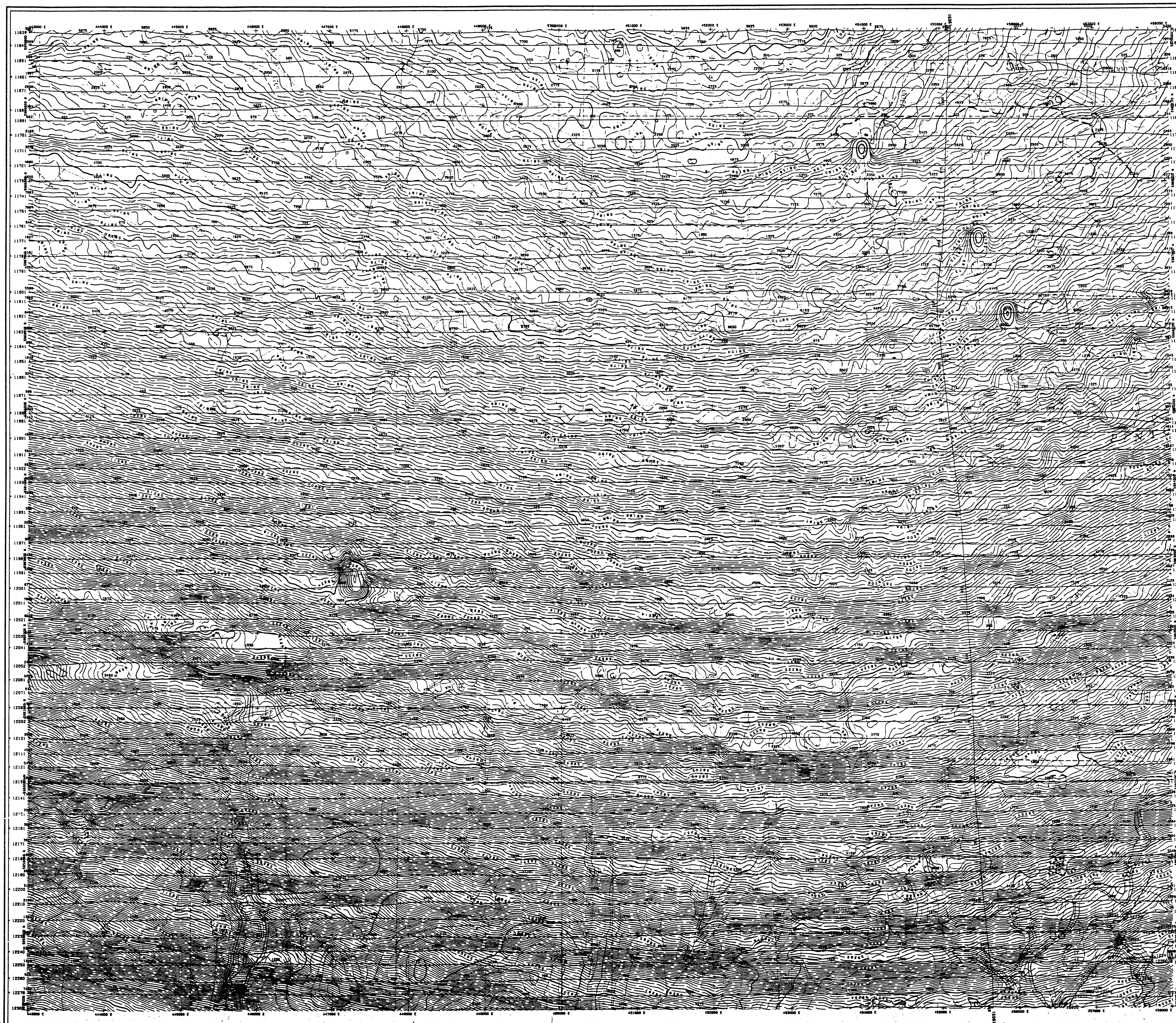


TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
1 / 200	1	2 / 400
	2	
	3	

200 – WIDTH OF ANOMALY IN METRES

2 – PROBABILITY OF CULTURE
3 – low
2 – medium
1 – high

FLIGHT LINES

13010
13020 <

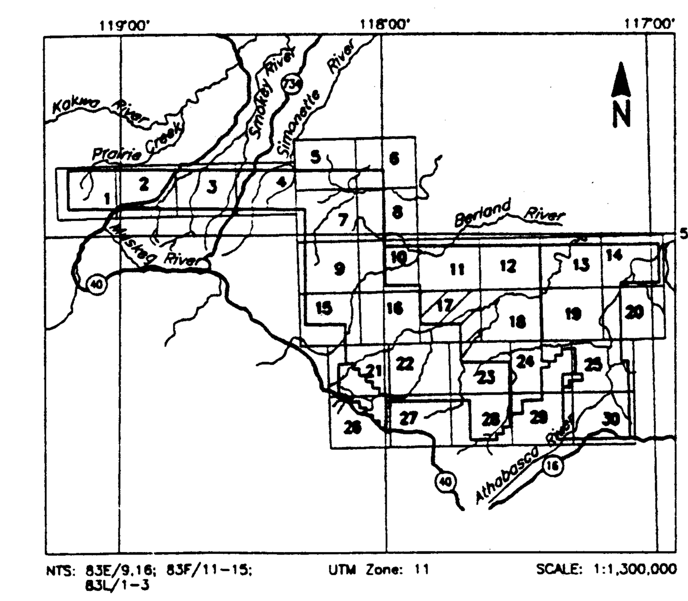
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles
250

TOTAL FIELD MAGNETIC CONTOURS

.... 25.0 nT
.... 5.0 nT
.... 1.0 nT
.... 0.5 nT
.... magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11–15; 83L/1–3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM * SURVEY	NTS: see above	GEOPHYSICIST: G
DATE: JULY, 1994	JOB: 1179	SHEET: 17

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
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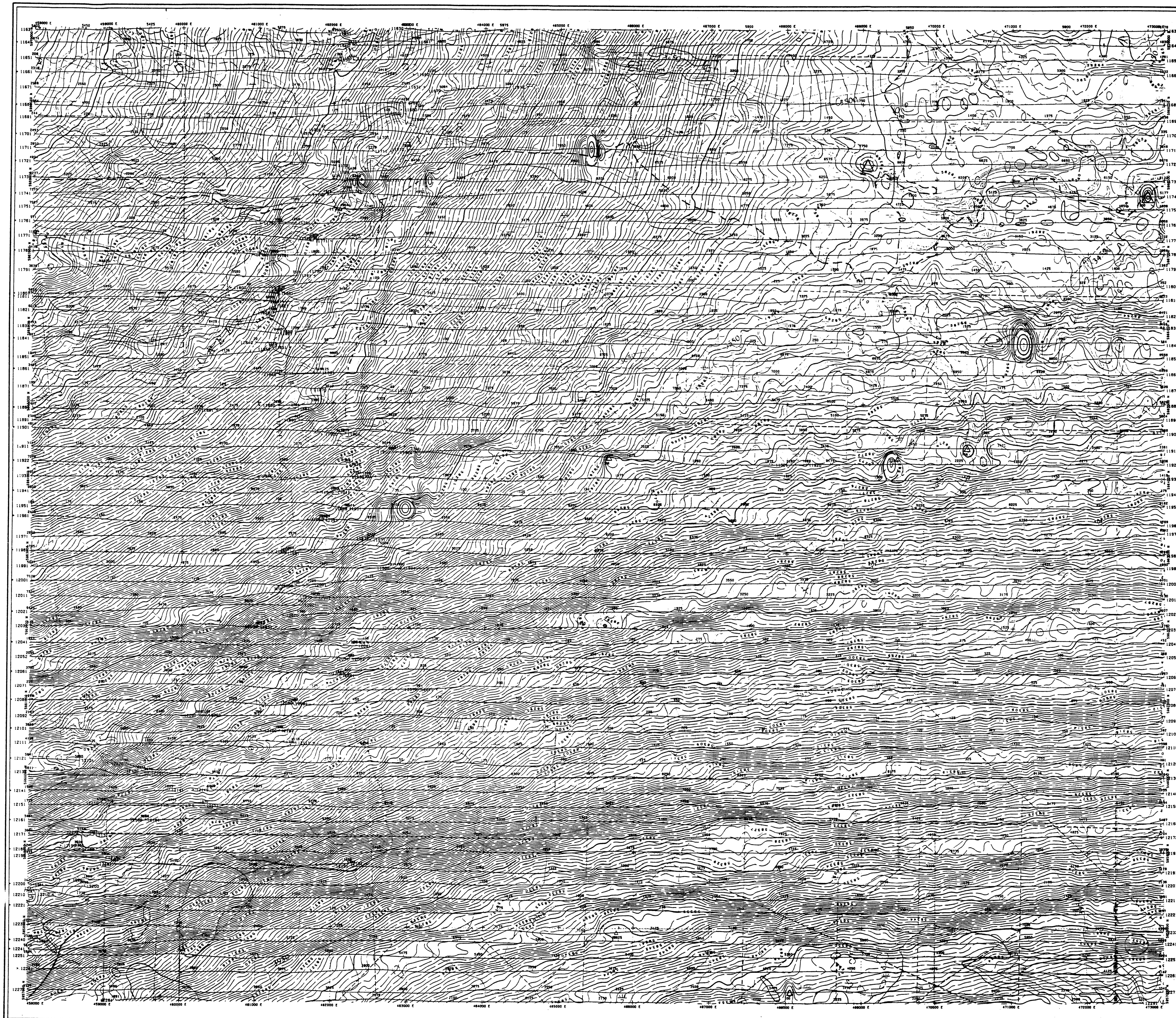


TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m
	Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE — PRIORITY — MULTIPLE LINE

1, 200 — WIDTH OF ANOMALY IN METRES — 1 — 400, 2 — PROBABILITY OF CULTURE

3 - low
2 - medium
1 - high

2

3

FLIGHT LINES

13010 — 13020 — 250

Flight direction

Flight line number

11020

Reflight Number

Line Number

Area Number

Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

.... 25.0 nT

.... 5.0 nT

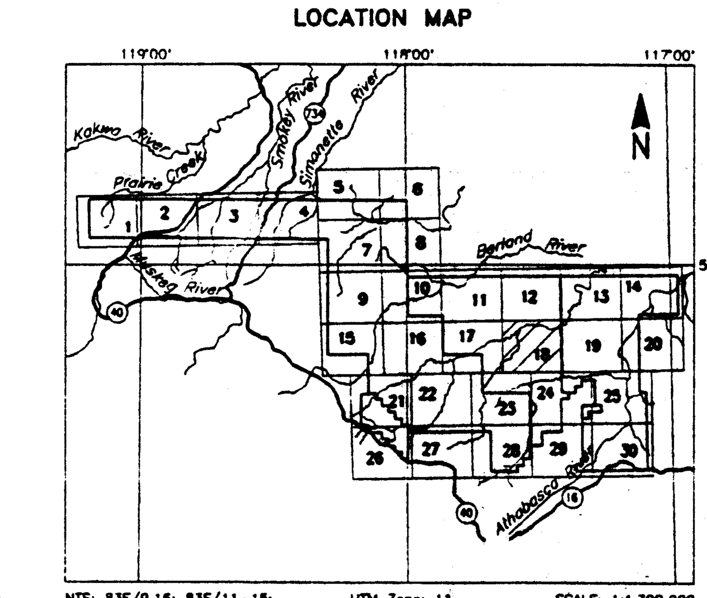
.... 1.0 nT

.... 0.5 nT

.... magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 33L/1-3 — UTM Zone: 11 — SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM V SURVEY	NTS: see above	GEOPHYSICIST:
DATE. JULY, 1994	JOB: 1179	SHEET: 18

DIGHEM, A division of CGG Canada Ltd.

0 — 1 — 2 Km

Scale 1:20 000

DIGHEM

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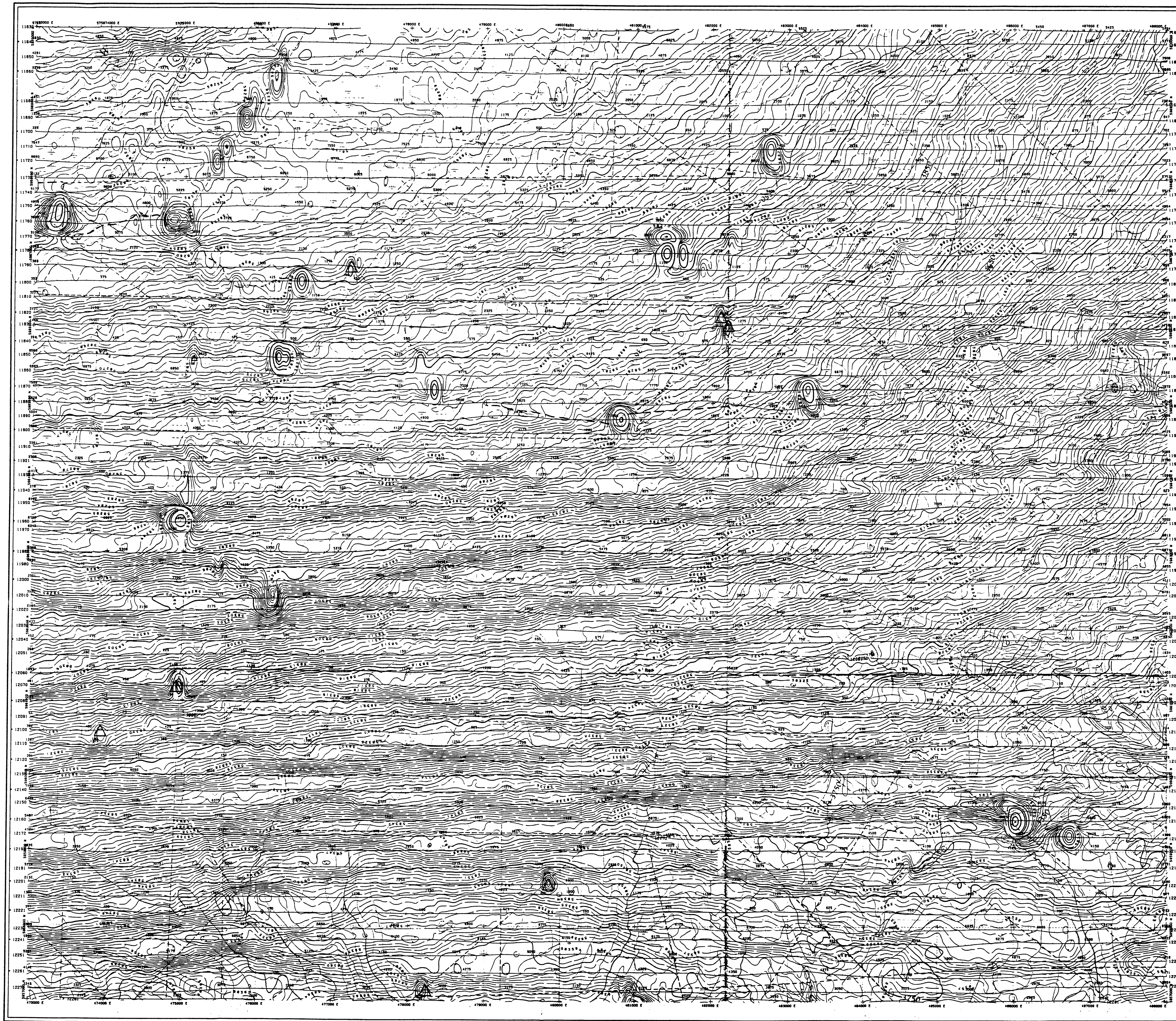


TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m
	Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
△ 1, 200	1	□ 2, 400
△	2	□
△	3	□

200 — WIDTH OF ANOMALY IN METRES

2 — PROBABILITY OF CULTURE
3 - low
2 - medium
1 - high

FLIGHT LINES

13010
13020
250

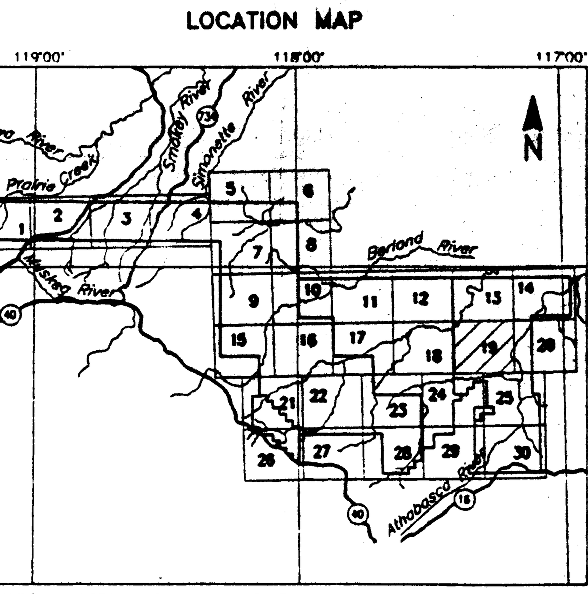
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

(line)	25.0 nT
(line)	5.0 nT
(line)	1.0 nT
(dashed line)	0.5 nT
(ellipse)	magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

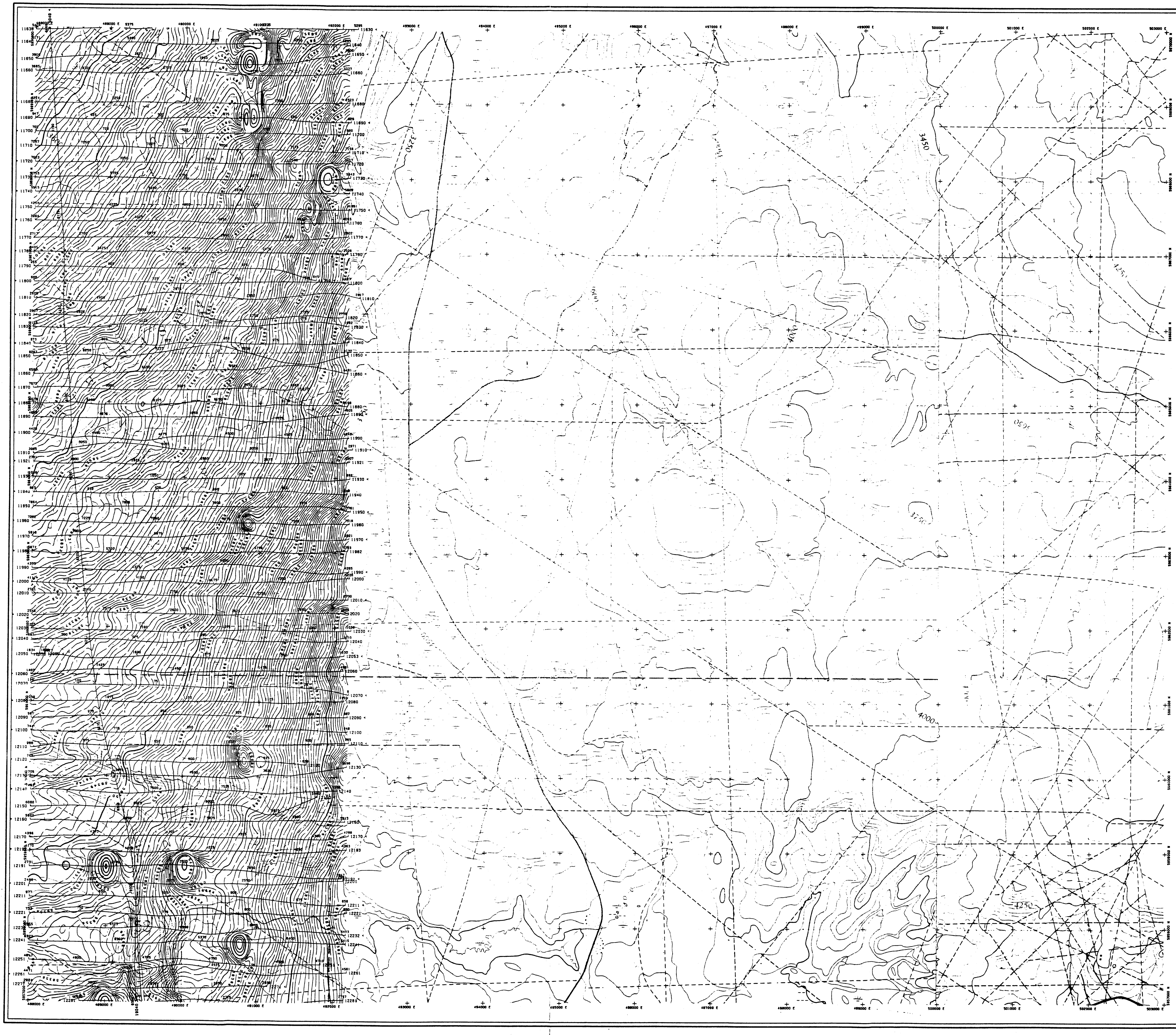
TOTAL FIELD MAGNETICS

DIGHEM * SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 19

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
1 200 WIDTH OF ANOMALY IN METRES	1	2 PROBABILITY OF CULTURE 400
	2	
	3	

PROBABILITY OF CULTURE
3 – low
2 – medium
1 – high

FLIGHT LINES

13010
13020
250

Flight direction

Flight line number
11020
Reflight Number
Line Number
Area Number

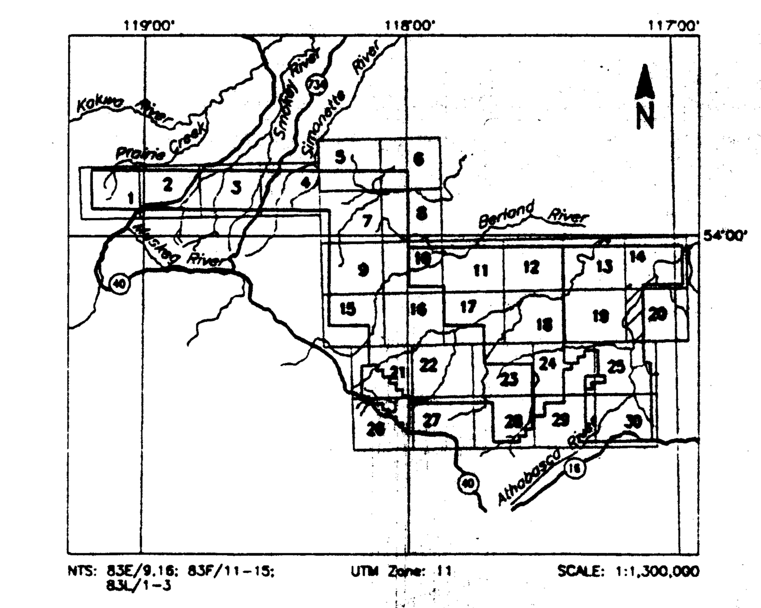
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

25.0 nT
5.0 nT
1.0 nT
0.5 nT
magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3
UTM Zone: 11
SCALE: 1:1,300,000

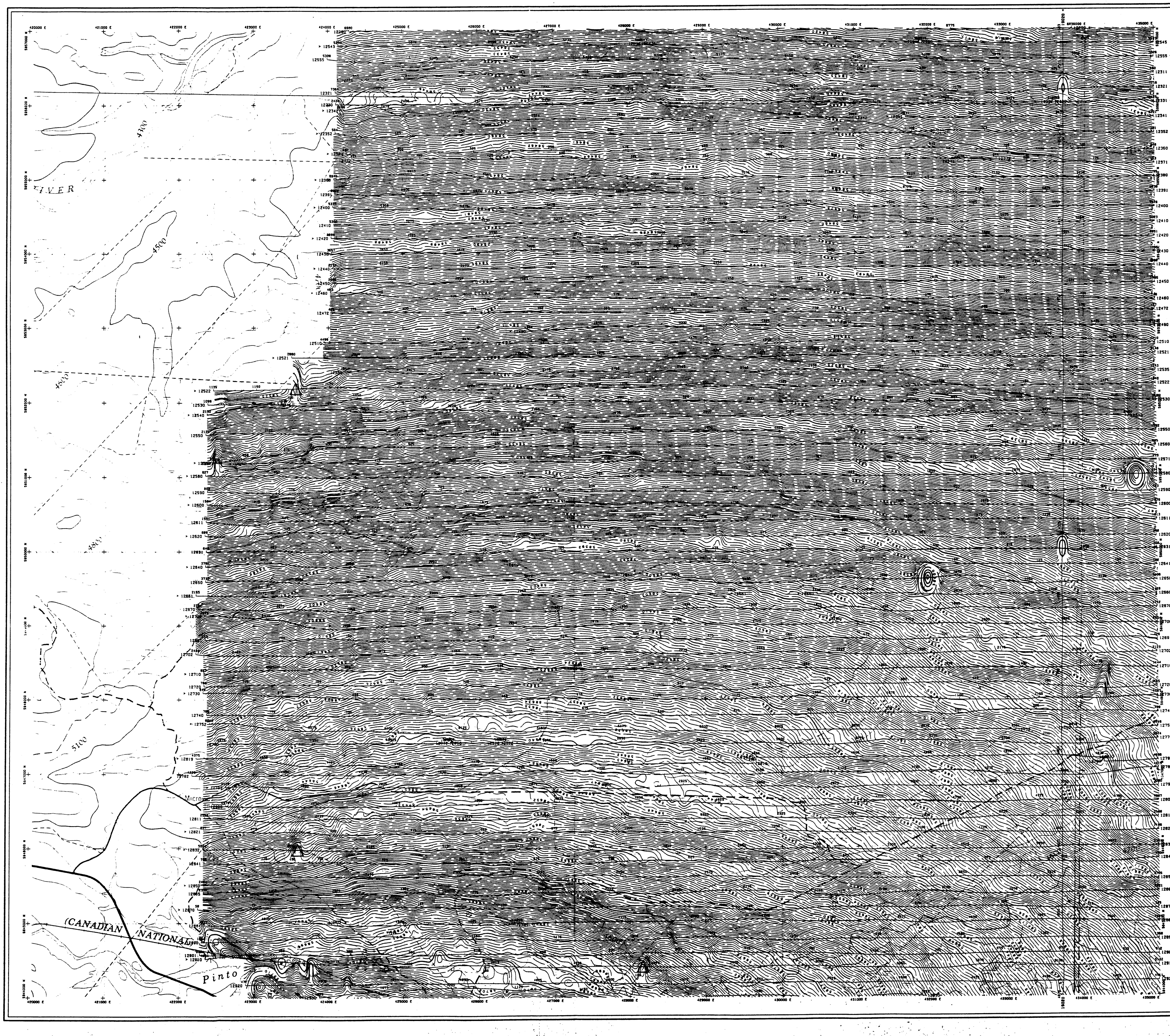
MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM[v] SURVEY	NTS: see above	GEOPHYSICIST: G
DATE: JULY, 1994	JOB: 1179	SHEET: 20
DIGHEM, A division of CGG Canada Ltd.		

0 1 2 Km
Scale 1:20 000

DIGHEM
Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 80 m Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE — PRIORITY — MULTIPLE LINE

200 WIDTH OF ANOMALY IN METRES

PRIORITY 1, 2, 3

400

PROBABILITY OF CULTURE
3 – low
2 – medium
1 – high

FLIGHT LINES

13010
13020

Flight direction

Flight line number

11020

Reflight Number
Line Number
Area Number

Fiducials identified on profiles

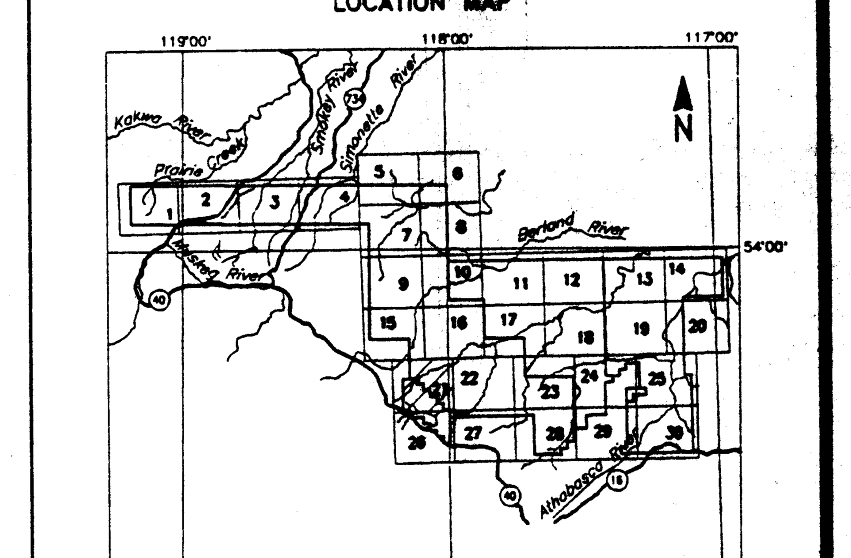
250

TOTAL FIELD MAGNETIC CONTOURS

.... 25.0 nT
.... 5.0 nT
.... 1.0 nT
.... 0.5 nT
.... magnetic low

Magnetic inclination within the survey area: 58 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

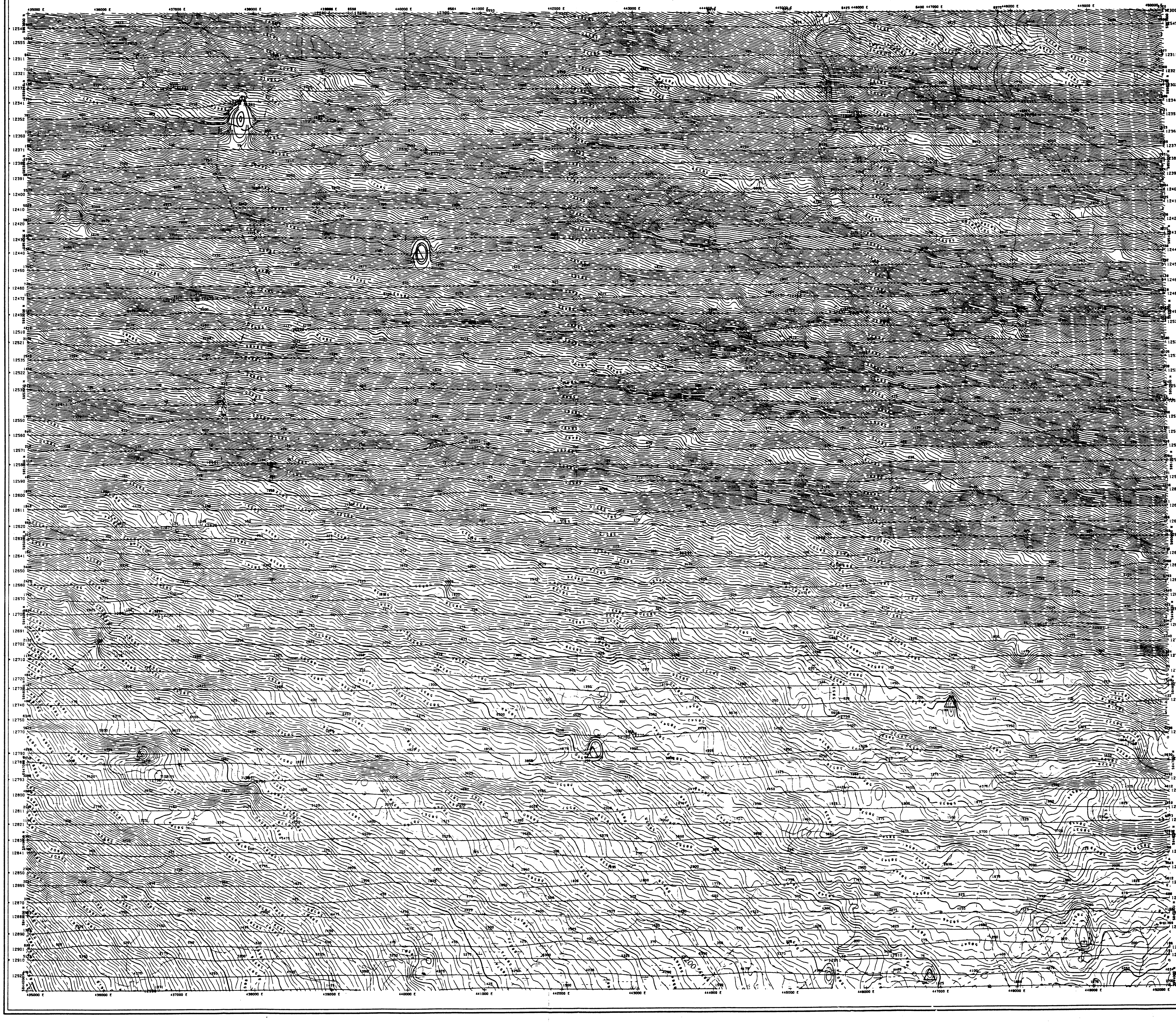
DIGHEM* SURVEY	NTS: see above	GEOPHYSICIST: G
DATE: JULY, 1994	JOB: 1179	SHEET: 21

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km

Scale 1:20 000

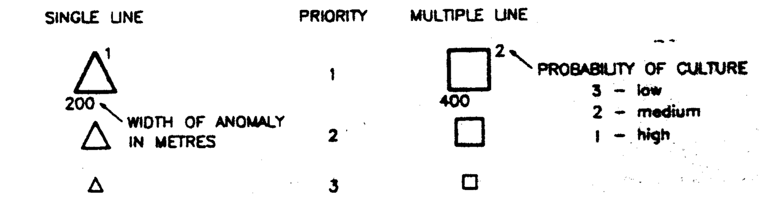
DIGHEM
Quality and Service in Airborne Geophysics



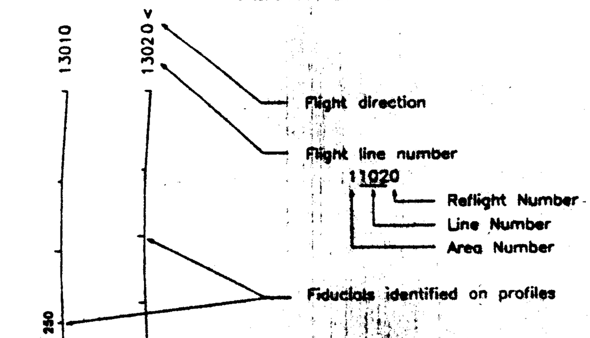
TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

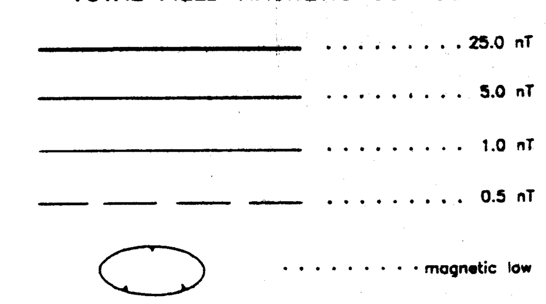
MAGNETIC ANOMALIES



FLIGHT LINES

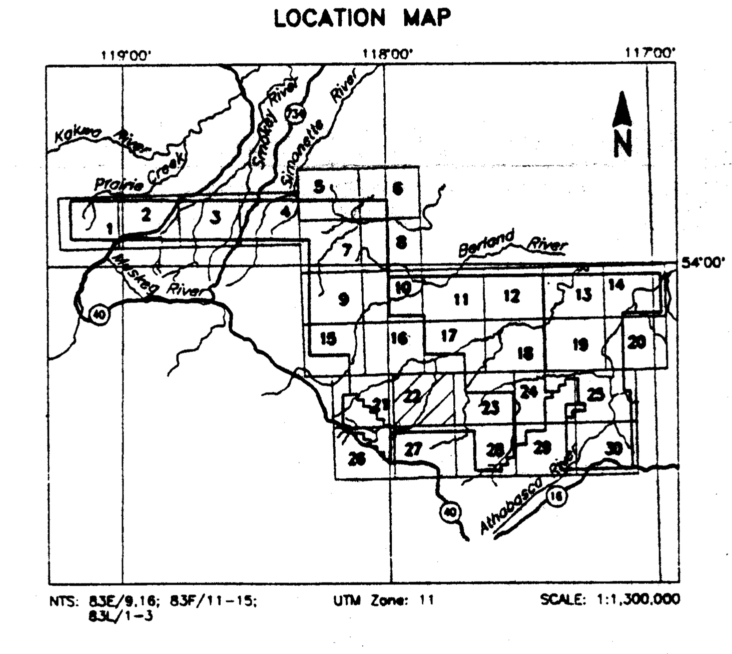


TOTAL FIELD MAGNETIC CONTOURS



Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM* SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 22

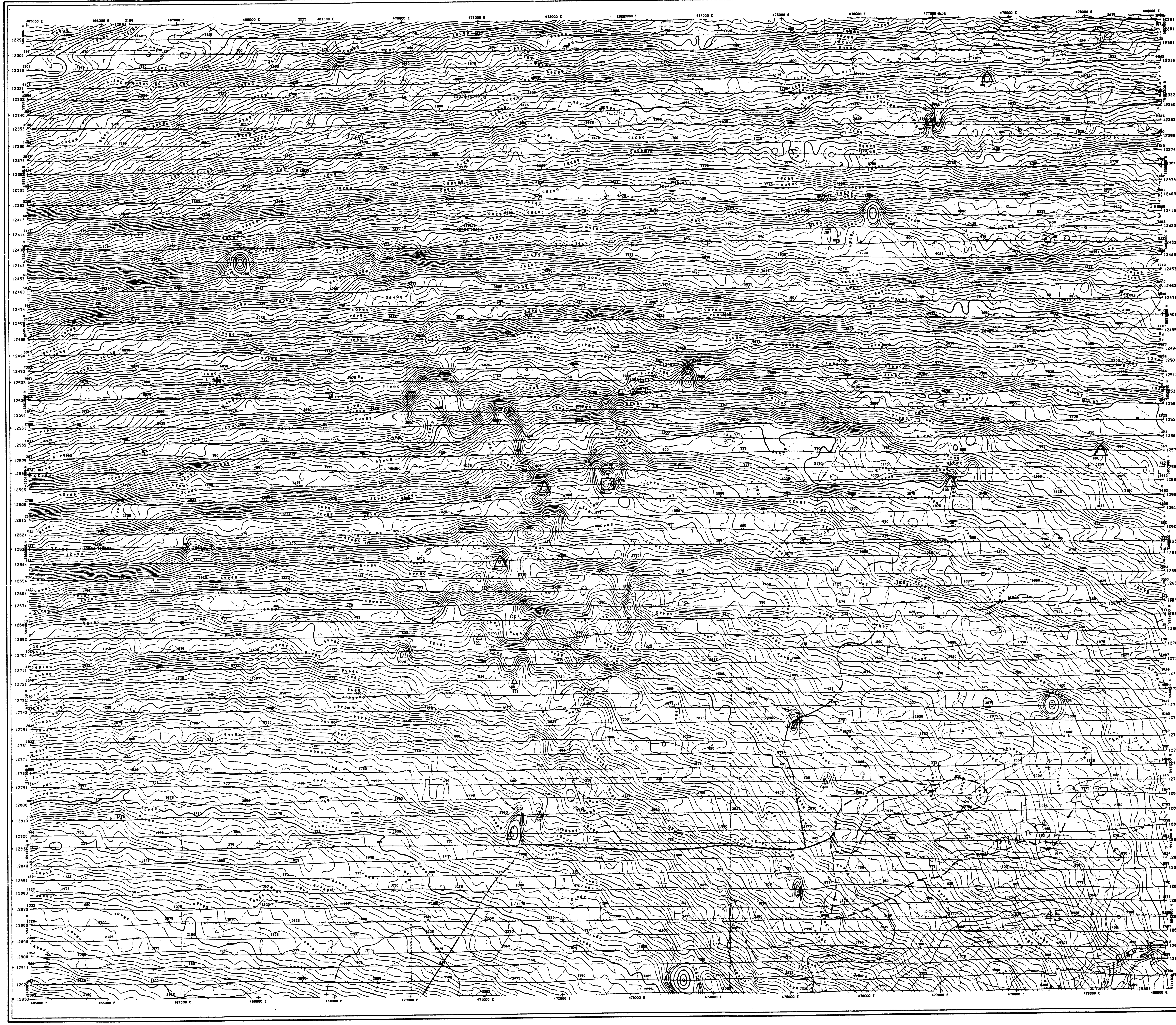
DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km

Scale 1:20 000

DIGHEM

Quality and Service in Airborne Geophysics



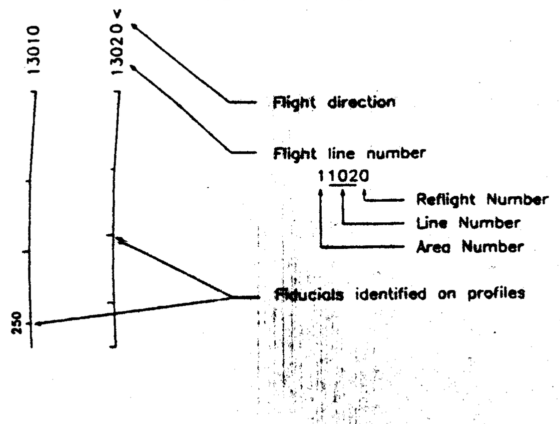
TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m
	Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 WIDTH OF ANOMALY IN METRES	1	400 PROBABILITY OF CULTURE 3 – low 2 – medium 1 – high
	2	
	3	

FLIGHT LINES

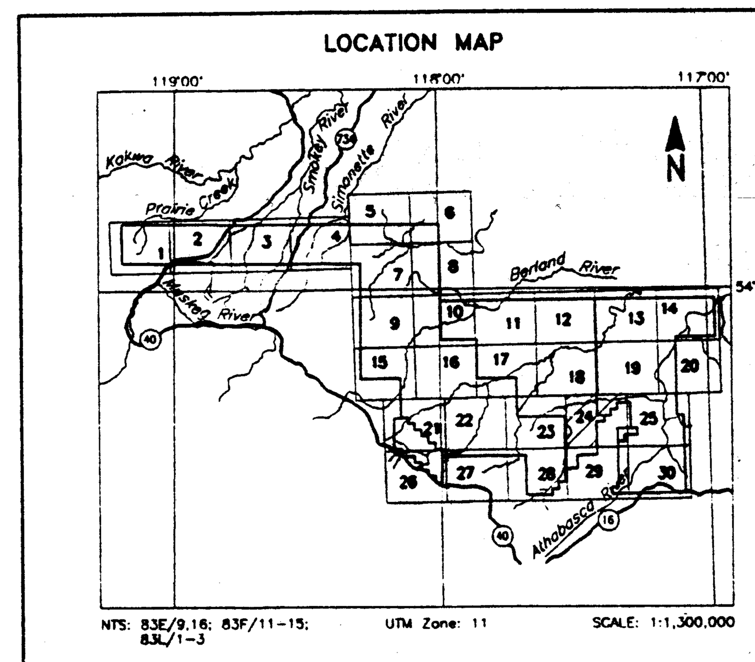


TOTAL FIELD MAGNETIC CONTOURS

(line)	25.0 nT
(line)	5.0 nT
(line)	1.0 nT
(dashed line)	0.5 nT
(ellipse)	magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

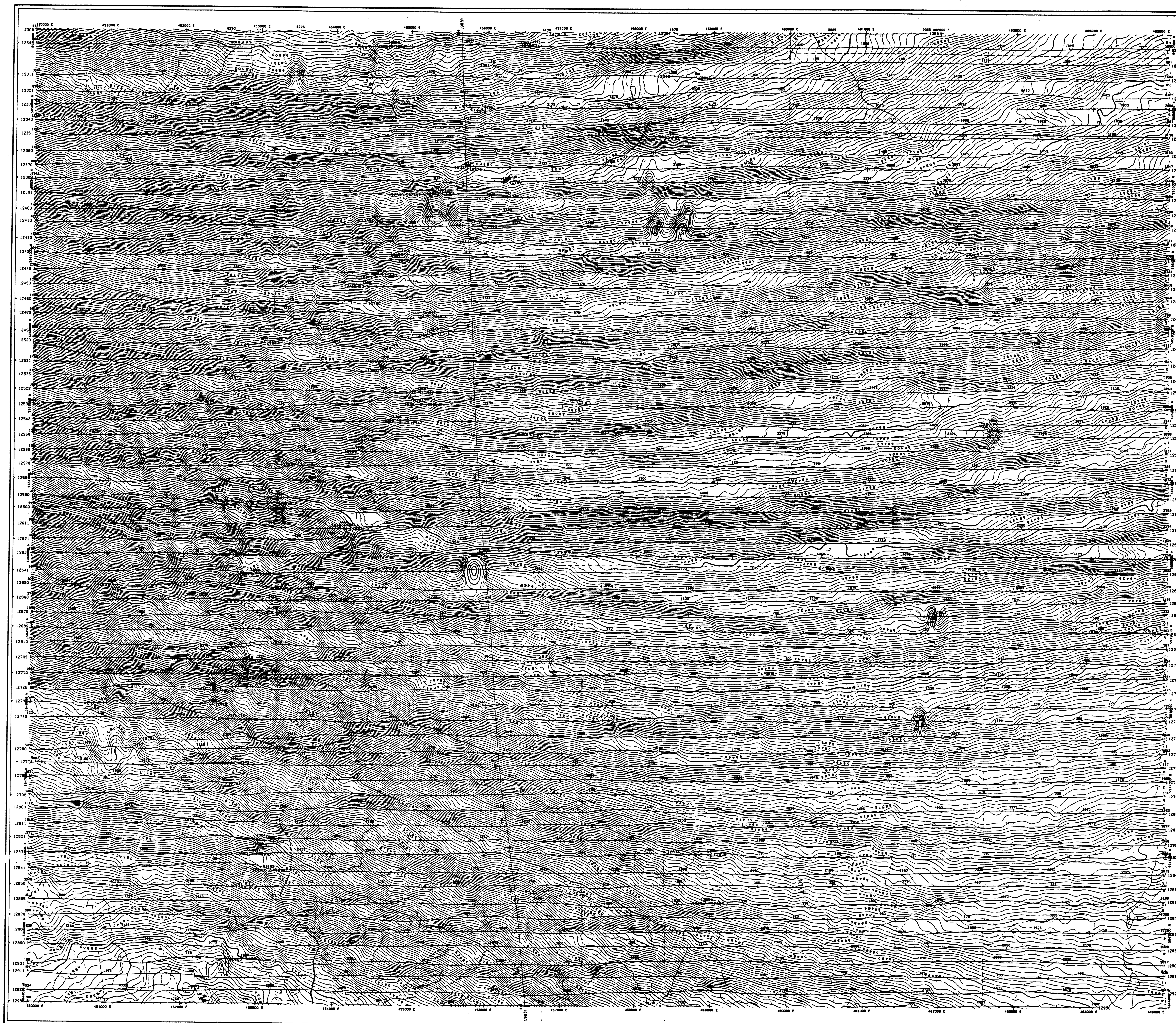
TOTAL FIELD MAGNETICS

DIGHEM[V] SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 24

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM



TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
1 200	1	2 400
	2	
	3	

WIDTH OF ANOMALY IN METRES

PROBABILITY OF CULTURE
3 – low
2 – medium
1 – high

FLIGHT LINES

13010
13020
250

Flight direction

Flight line number

11020

Reflight Number
Line Number
Area Number

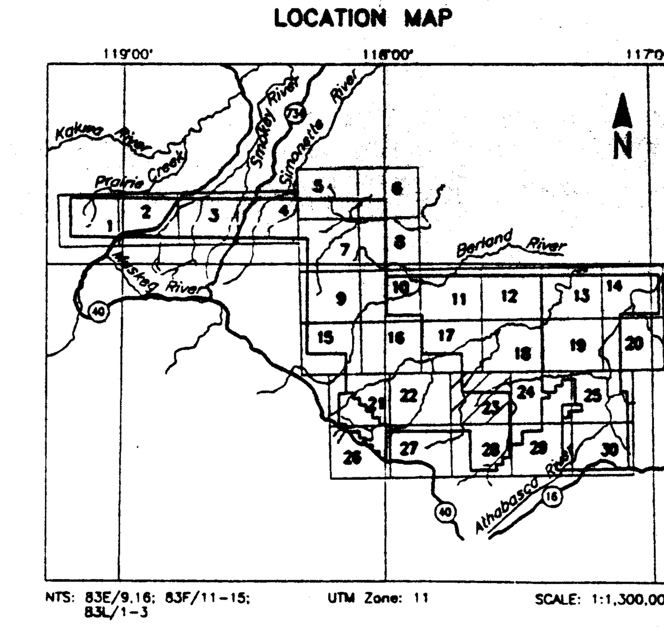
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

25.0 nT
5.0 nT
1.0 nT
0.5 nT
magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3
UTM Zone: 11
SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM[v] SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 23

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

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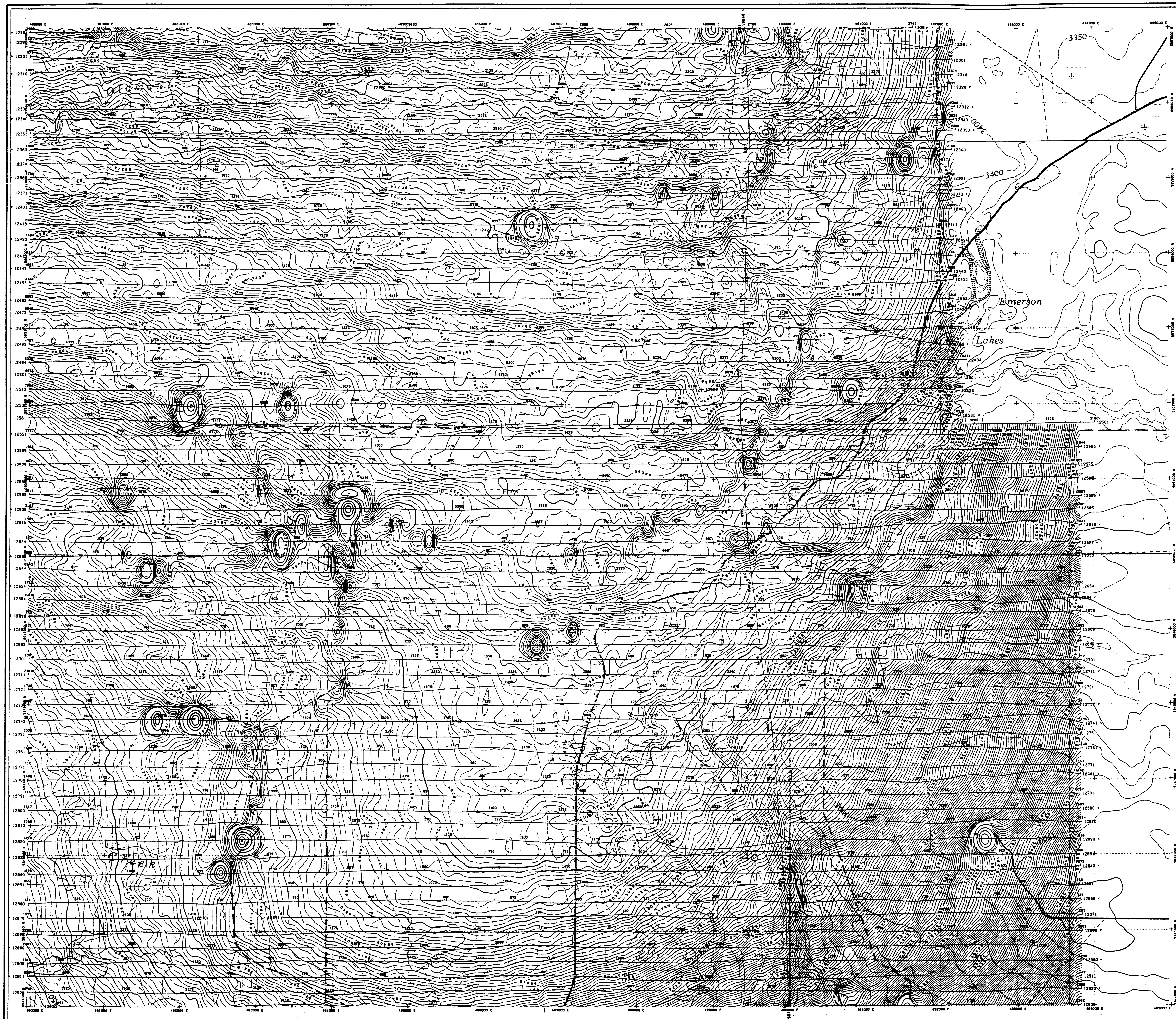


TECHNICAL SUMMARY

Navigation . . . . Sercel real time differential GPS positioning
Data reduction grid interval . . . . 50 metres
Terrain clearance . . . . Helicopter 60 m
Magnetometer 40 m
Data sampling interval . . . . 0.1 second
Magnetometer / sensitivity . . . . . Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
△ 1, 200	1	□ 2, 400
△	2	□
△	3	□

WIDTH OF ANOMALY IN METRES

PROBABILITY OF CULTURE
3 – low
2 – medium
1 – high

FLIGHT LINES

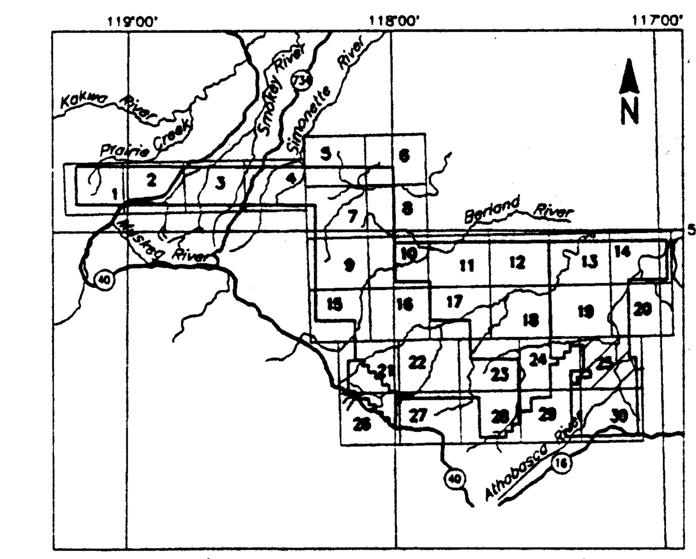
13010
13020
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
250
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3
UTM Zone: 11
SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM* SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 25

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

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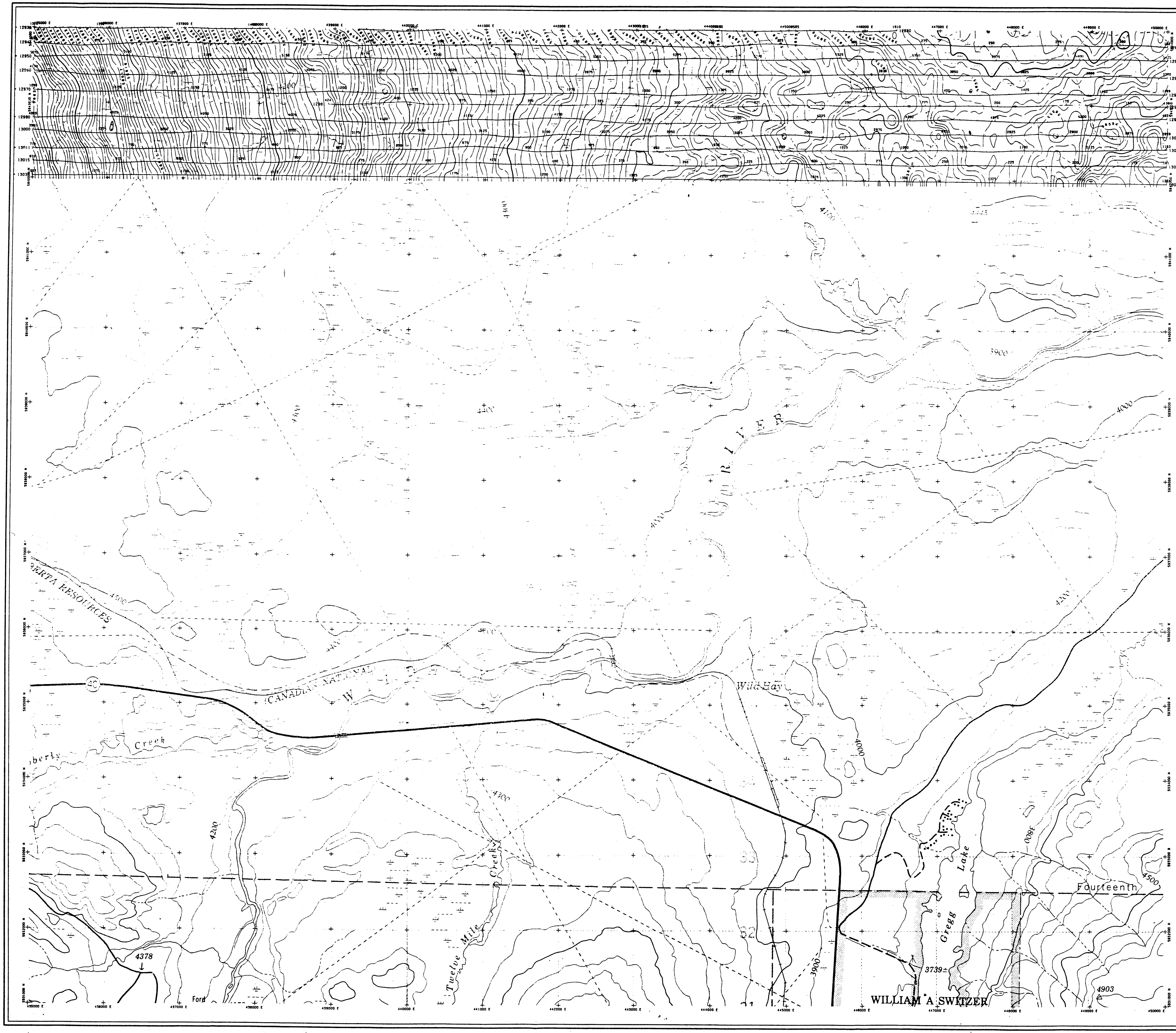


TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m
	Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE — PRIORITY — MULTIPLE LINE

1, 2, 3

200 — WIDTH OF ANOMALY IN METRES

400 — 2 — PROBABILITY OF CULTURE: 3 - low, 2 - medium, 1 - high

FLIGHT LINES

13010, 13020

Flight direction

Flight line number

11020 — Reflight Number, Line Number, Area Number

250 — Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

25.0 nT

5.0 nT

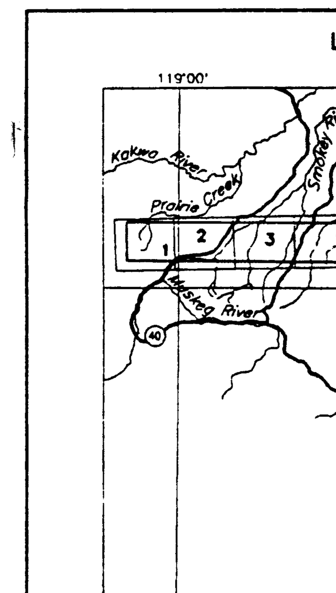
1.0 nT

0.5 nT

magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 — UTM Zone: 11 — SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM* SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 27

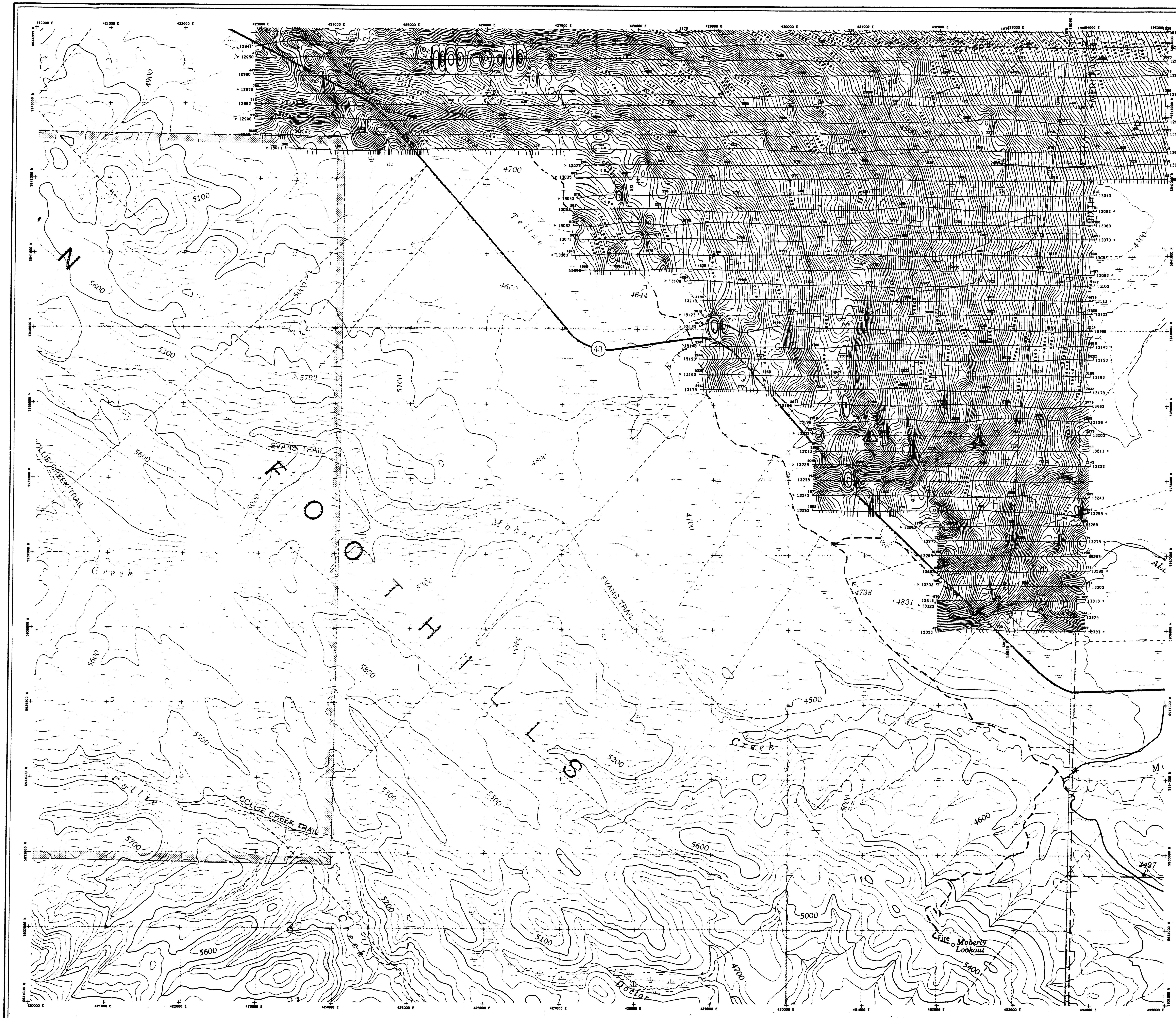
DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km

Scale 1:20 000

DIGHEM

Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation . . . . Sercel real time differential GPS positioning
Data reduction grid interval . . . . 50 metres
Terrain clearance . . . . Helicopter 60 m
Magnetometer 40 m
Data sampling interval . . . . 0.1 second
Magnetometer / sensitivity . . . . . Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE | PRIORITY | MULTIPLE LINE

1 | 2 PROBABILITY OF CULTURE

3 – low

2 – medium

1 – high

200 WIDTH OF ANOMALY IN METRES | 400

2

3

FLIGHT LINES

13010

13020

Flight direction

Flight line number

11020

Reflight Number

Line Number

Area Number

250

Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT

. . . . 5.0 nT

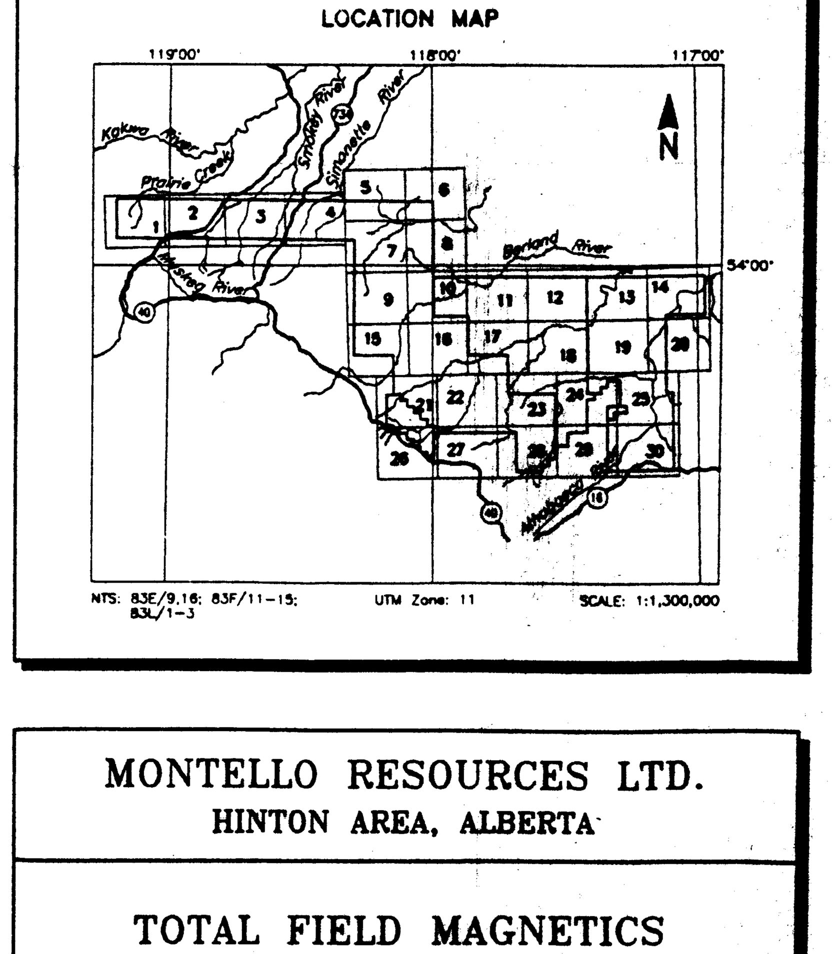
. . . . 1.0 nT

. . . . 0.5 nT

. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11–15; 83L/1–3 | UTM Zone: 11 | SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.

HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM* SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 26

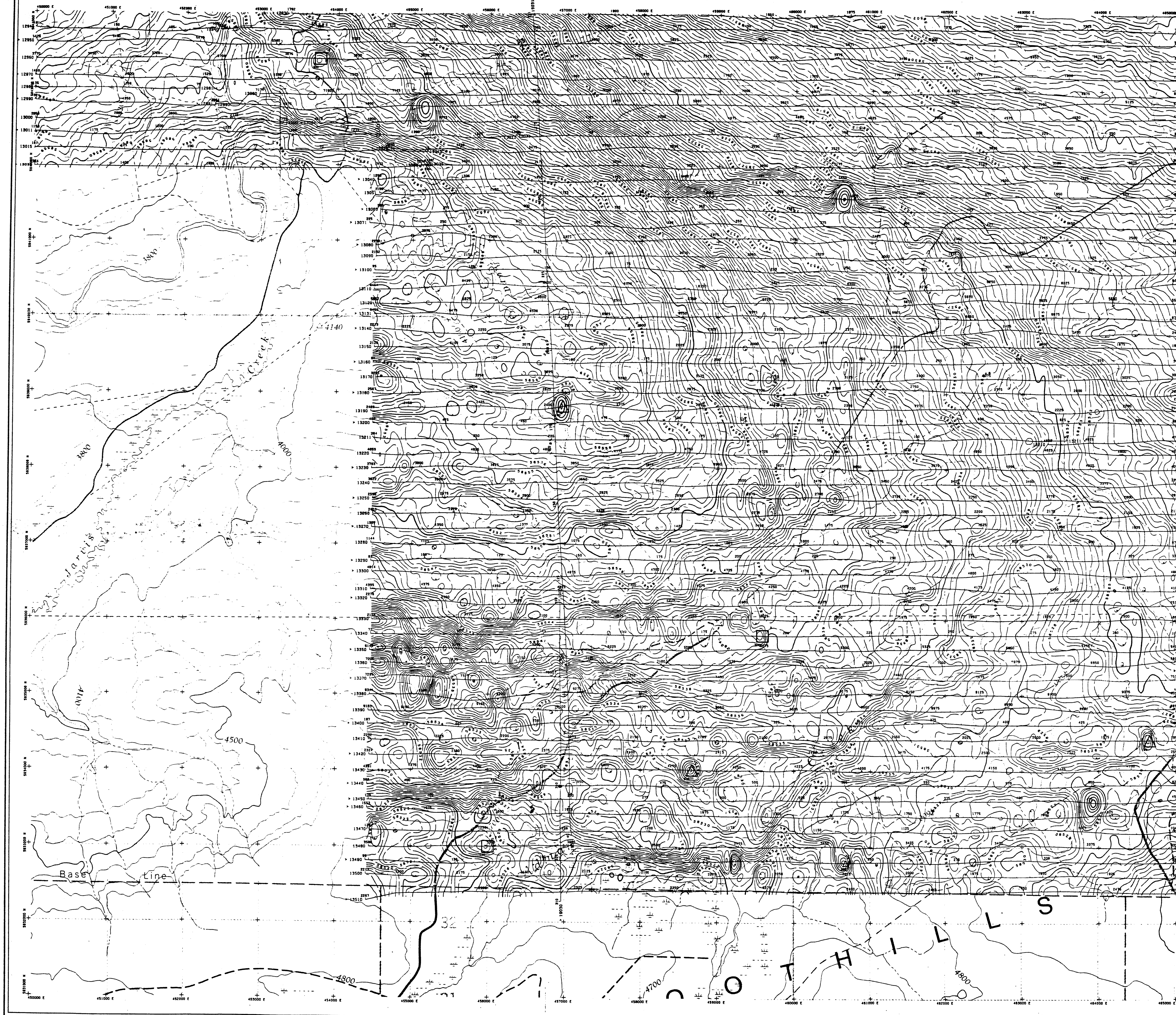
DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km

Scale 1:20 000

DIGHEM

Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation . . . . Sercel real time differential GPS positioning
Data reduction grid interval . . . . 50 metres
Terrain clearance . . . . Helicopter 60 m
Magnetometer 40 m
Data sampling interval . . . . 0.1 second
Magnetometer / sensitivity . . . . . Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
1 / 200 WIDTH OF ANOMALY IN METRES	1	2 / 400 PROBABILITY OF CULTURE: 3 – low, 2 – medium, 1 – high
	2	
	3	

FLIGHT LINES

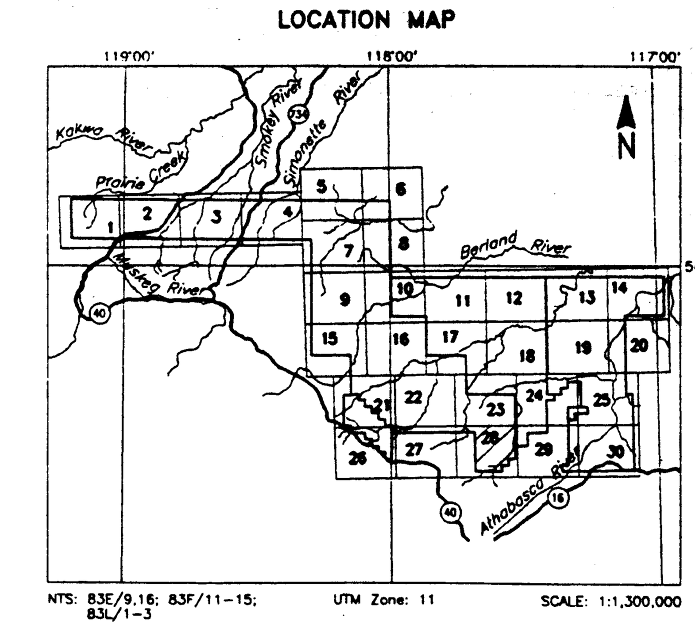
13010
13020
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
250
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

. . . . 25.0 nT
. . . . 5.0 nT
. . . . 1.0 nT
. . . . 0.5 nT
. . . . magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11–15; 83L/1–3
UTM Zone: 11
SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 28

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
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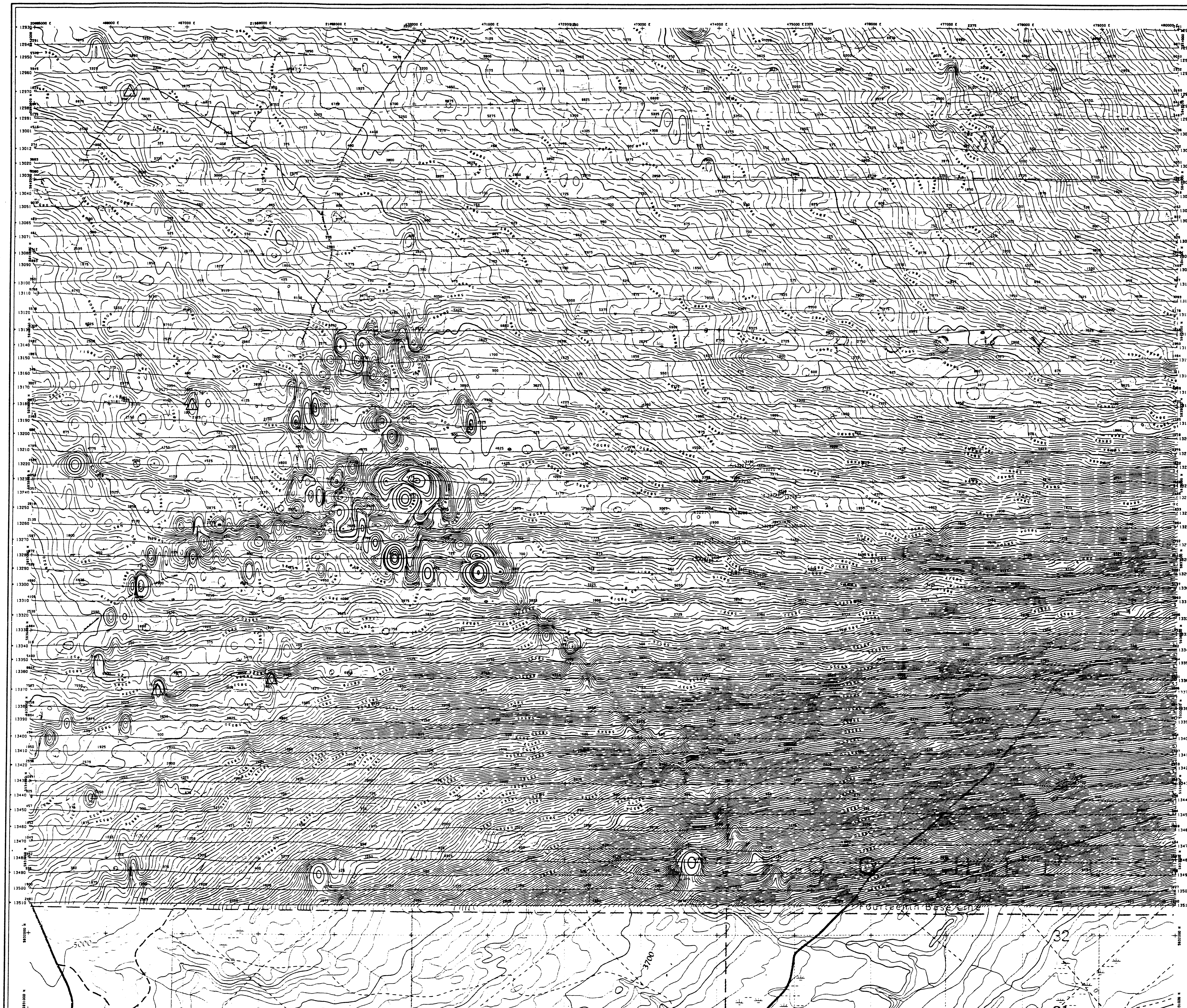


TECHNICAL SUMMARY

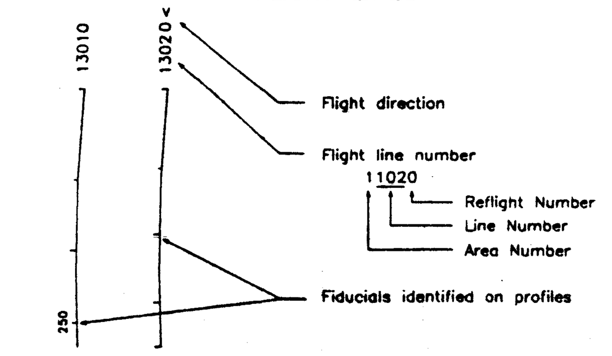
Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m
	Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

N

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 WIDTH OF ANOMALY IN METRES	1	400 PROBABILITY OF CULTURE 3 - low 2 - medium 1 - high
	2	
	3	

FLIGHT LINES

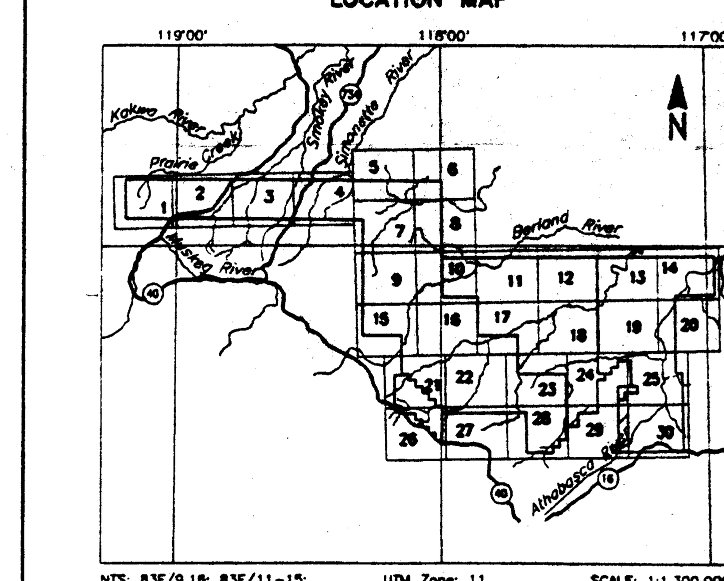


TOTAL FIELD MAGNETIC CONTOURS

25.0 nT
5.0 nT
1.0 nT
0.5 nT
magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 UTM Zone: 11 SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM[v] SURVEY	NTS: see above	GEOPHYSICIST:
DATE: JULY, 1994	JOB: 1179	SHEET: 29

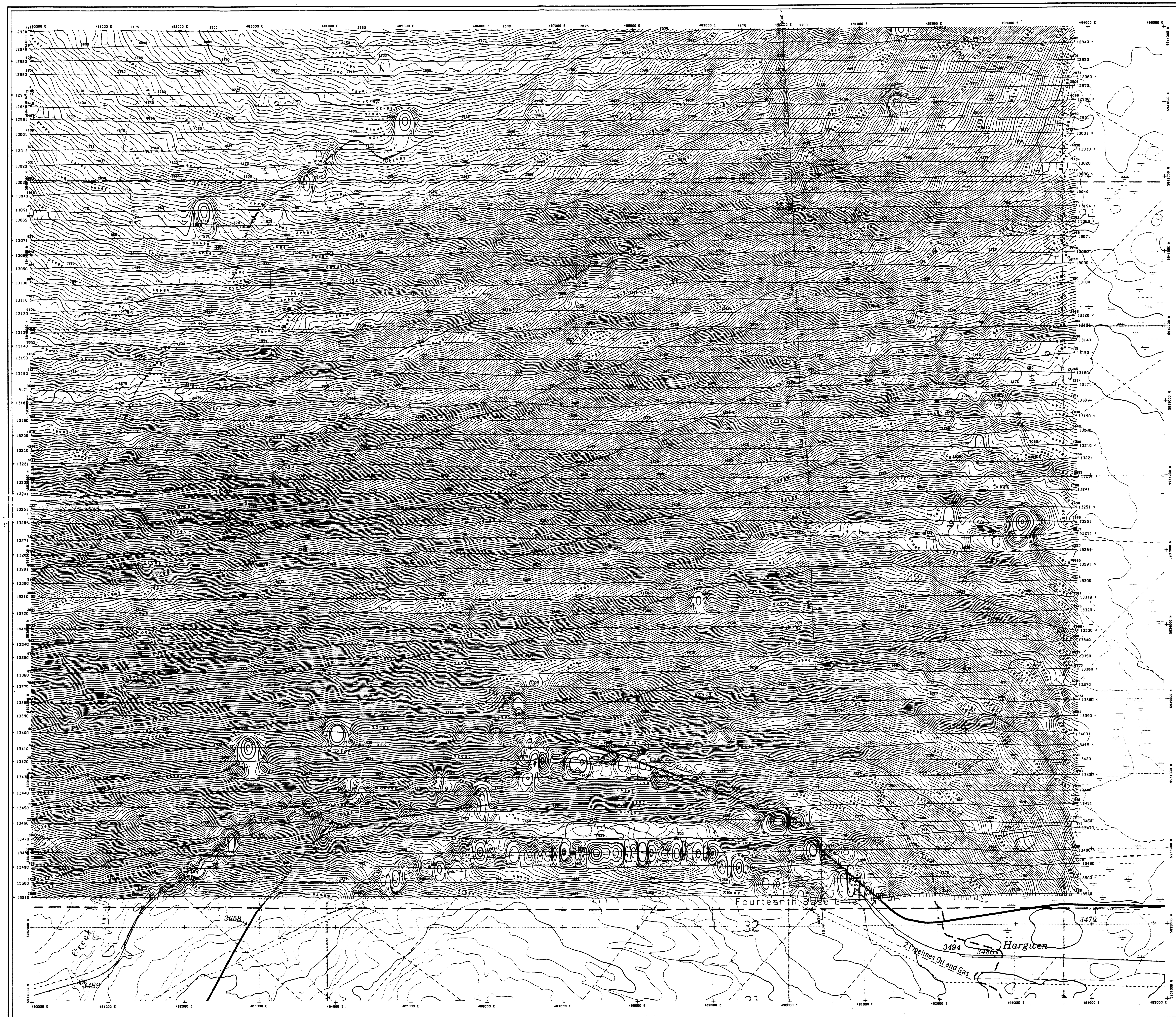
DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km

Scale 1:20 000

DIGHEM

Quality and Service in Airborne Geophysics



TECHNICAL SUMMARY

Navigation	Sercel real time differential GPS positioning
Data reduction grid interval	50 metres
Terrain clearance	Helicopter 60 m
	Magnetometer 40 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Scintrex cesium / 0.01 nT

MAGNETIC ANOMALIES

SINGLE LINE	PRIORITY	MULTIPLE LINE
200 — WIDTH OF ANOMALY IN METRES	1	400 — 2 PROBABILITY OF CULTURE: 3 - low, 2 - medium, 1 - high
	2	
	3	

FLIGHT LINES

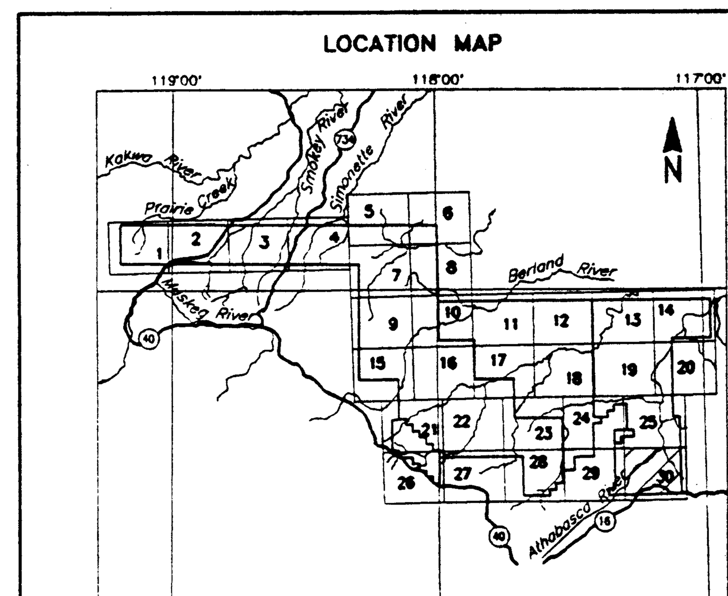
13010
13020
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
250
Fiducials identified on profiles

TOTAL FIELD MAGNETIC CONTOURS

25.0 nT
5.0 nT
1.0 nT
0.5 nT
magnetic low

Magnetic inclination within the survey area: 68 degrees

LOCATION MAP



NTS: 83E/9,16; 83F/11-15; 83L/1-3 — UTM Zone: 11 — SCALE: 1:1,300,000

MONTELLO RESOURCES LTD.
HINTON AREA, ALBERTA

TOTAL FIELD MAGNETICS

DIGHEM ᵛ SURVEY	NTS: see above	GEOPHYSICIST: G
DATE: JULY, 1994	JOB: 1179	SHEET: 30

DIGHEM, A division of CGG Canada Ltd.

0 1 2 Km
Scale 1:20 000

DIGHEM
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GRANDE CACHE
Smoky River
Rocky Mountain Foothills
Laurentide Ice Sheet
Cordilleran Ice Sheet
Berland River
Athabaska River
Wildhay
See Figure 4
118°00'
118°30'
117°30'
117°00'
54°00'
53°45'
40
16
LEGEND
Aeromagnetic Anomaly
1st Priority
2nd Priority
3rd Priority
After Dighem data
Stream sediment sample location
Till sample location
Glacial ice-flow direction
Approximate contact of Laurentide and Cordilleran glaciers
after Roed (1975) and G.S.C. Map 1253A
9393030662
Metallic and Industrial Minerals Permit and Number
note
Only portions of drainage system shown
DISCOVERY Consultants
MONTELLO RESOURCES LTD.
HINTON PROPERTY
Permits, Aeromagnetic Anomalies,
Heavy Mineral Sample Locations, Glacial Features
DATE: Jan. 31/1995
SCALE: 1:100000
PROJECT: 559
NTS: Part of 83E,F,K,L
FIGURE: 3
UTM
0 1 2 3 4 5 6 7
KILOMETRES