

MAR 19970005: HORSESHOE

Received date: Jun 30, 1997

Public release date: Jul 01, 1998

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19970003

Assessment Report

Exploration Program on the Horseshoe Project, Peace River Area, Alberta

**NTS 84-C-2,3,6,7
Latitude 56° 25'
Longitude 117° 00'**

**Metallic and Industrial Minerals Permits
Nos. 9393030126 to 9393030132 & 9393030135**

June 25 1997

on behalf of

**Ridgeway Petroleum Corp. - Calgary
Horseshoe Gold Mining Inc. - Vancouver**

by

Michael Marchand Ph.D. P. Geol.

ABSTRACT

An low level helicopter-borne magnetic survey was carried out over the previously identified anomalous areas in order to precisely define anomalies indicative of kimberlitic pipes or bodies. The survey was flown at a line spacing of 50 m with an altitude of 20 m for the magnetic sensor. This survey can be considered the equivalent of a ground survey as it provides nearly the same definition as a ground survey. It had a magnetic reading every 3.1 m (10 feet).

Magnetic anomalies were categorized based on the visual character, size and shape of the identified targets; 5 targets are probably insignificant, 5 are low priority, 8 are medium priority and 4 are of high priority. All these targets require additional geophysical processing and modeling carried out on them as they contain significant anomalies and magnetic patterns. Though results from drilling in 1995 were disappointing in that no direct evidence of kimberlitic or lamproitic rocks were identified, no reason could be identified for the magnetic anomalies. It has been noted that there is often difficulty in visually identifying the sedimentary crater facies in high level kimberlite intrusions, and that a single drill hole is usually insufficient to evaluate a magnetic anomaly due to kimberlite, the previous drilling results are not considered to be definitive. A number of the priority anomalies indicated in the new high precision magnetic survey need to be drilled or re-drilled after geophysical modelling has defined the size, shape and character of the anomaly.

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Introduction:

This assessment report covers the work carried out during the evaluation of the Ridgeway Petroleum Metallic and Industrial Minerals Permits Nos. 9393030126 to 9393030132 & 9393030135 9 permits in the Peace River area during the years 1995 and 1997. The work was carried out for a joint venture of Ridgeway Petroleum Corp., the original holder of the permits and Horseshoe Gold Mining Inc. to provide a detailed, precision, low level helicopterborne magnetic survey over twenty two selected targets of interest, east of Peace River, Alberta. Surveys were flown between February 27 and March 12, 1997 from a base established in Peace River airport. Approximately 2,950 line kilometers of total field magnetic data was collected. This survey was directed at discovering magnetic features related to kimberlitic intrusives and to tectonic structures.

Location & Access

The permits cover 53,696 ha. and are located near Peace River Alberta (Map 1) on NTS map sheet 84C-2,3,6,7 consisting of all or parts of T83 R17 & R20 W5, T84 R17 & R20 W5, T85 R17 & R19 -20 W5, T86 R19 W5 . The town of Peace River lies 150 km NE of Grand Prairie and 370 km NW of Edmonton. Peace River is a town with a population of 6700 with good infrastructure and daily scheduled airline service. Within the targeted area, terrain is generally flat, overlain by a thick northern pine forest of average 90 ft. in height. Access to the property was by helicopter from the town of Peace River.

The permits are presented graphically on Map 2 and a detailed list of the permits is presented as Table 1.

Regional Geology:

The permits cover a portion of the Peace River Arch (PRA) tectonic zone. The PRA is a cratonic uplift that was formed at a high angle to the passive margin of the Western Canadian Sedimentary Basin during the late Proterozoic and was active in a variety of modes and times throughout the Phanerozoic. During the activity of the PRA, faulting was extensive with reactivation

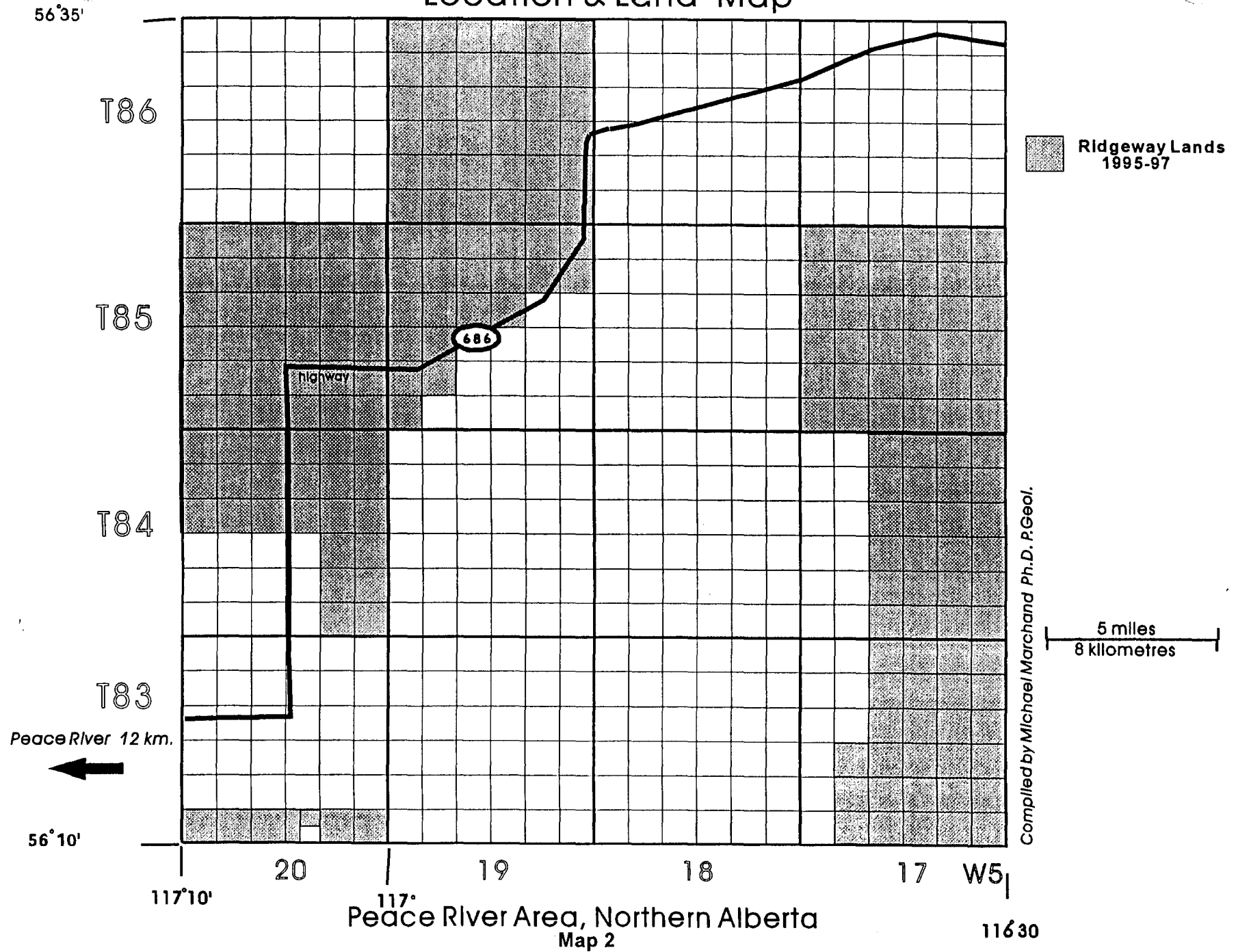
Map 1



**Location Map
Alberta, Canada**

Ridgeway Petroleum Corp. - Horseshoe Gold Mining Inc.

Location & Land Map



**Ridgeway Petroleum Corp.
Horseshoe Gold Mining Inc.
1997**

**Mineral & Industrial Mineral Permits
Peace River Area, Alberta**

Permit Number	Date Issued	Aggregate Area hectares	Description
9393030126	Mar 12 1993	6912	5-17-083: 1-5,8-17,21-28,33-36
9393030127	Mar 12 1993	1472	5-20-083: 1;2;3N,SW;4-6
9393030128	Mar 12 1993	6144	5-17-084: 1-4, 9-16, 21-28, 33-36
9393030129	Mar 12 1993	6144	5-20-084: 1-2;11-14; 19-36
9393030130	Mar 12 1993	9216	5-17-085: 1-36
9393030131	Mar 12 1993	5376	5-19-085: 6-8, 17-22, 25-36
9393030132	Mar 12 1993	9216	5-20-085: 1-36
9393030135	Mar 12 1993	9216	5-19-086: 1-36
		53696	Total Area

Table 1

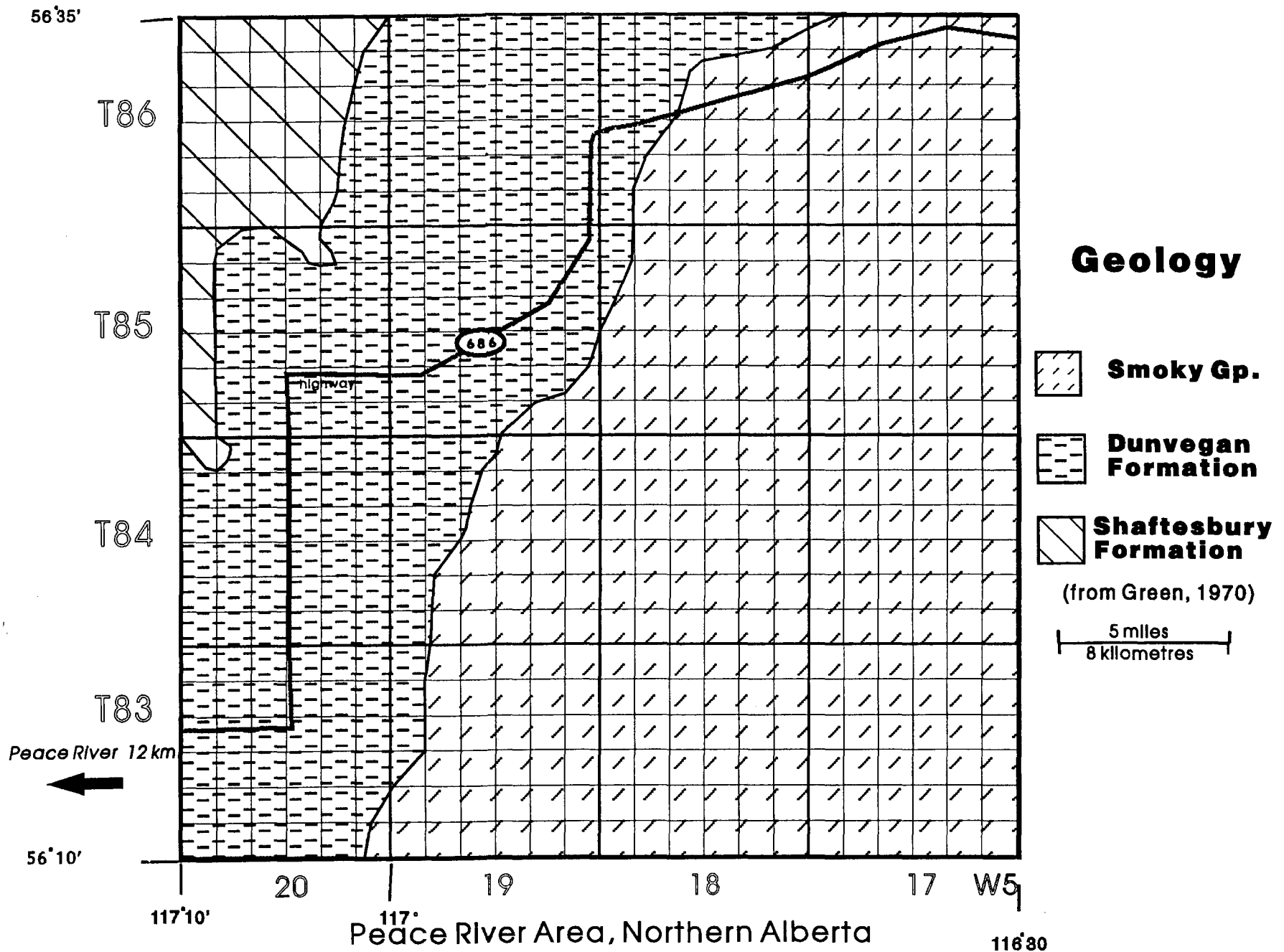
of Archean and Proterozoic faults a significant event. This occurrence of major faulting through the basement rocks provides excellent ground preparation for later kimberlite and lamproite events. They provide the pre-existing conduits for the younger kimberlitic intrusions to follow, potentially picking up the diamonds from the top of the mantle. The PRA has been re-activated a number of times in its history.

The Geological Survey of Canada has produced a number of studies and papers of the crustal structure beneath the Alberta portion of the basin. These studies are an integrated interpretation of the regional magnetic and gravity data, some recent seismic refraction studies and a program of U-Pb geochronology on samples from the wells that penetrated the Precambrian basement. The basement in the Peace River area is underlain by a cratonic block fringed by a metasedimentary belt. This cratonic block has been interpreted as "a complex region of crustal fragments" which may have allowed the preservation of old deep mantle roots that are the fertile regions for diamond generation and preservation.

Permit Geology

The bedrock surface lithology within the permit blocks are sedimentary formations of Upper Cretaceous age. (Map 3) The published geological Map (Green et al., 1970) indicates that the westerly portion of the project area is covered by dark grey shales of the Smoky Group, the northern and eastern portion of the project are underlain by feldspathic sandstone of the Dunvegan Formation. There is also a small amount of Shaftsbury Formation indicated outcropping in T84-85 R20 along the edge of the Peace River Valley. No actual ground mapping was carried out on the permits. It appears from the air photos and the diamond drilling that much of the area is heavily covered by drift. All four holes in the 1995 diamond drilling encountered approximately 200 ft of overburden.

Rogaway Petroleum Corp. - Corseshoe Gold Mining Inc.



Map 3

Aeromagnetic Survey:

High-Sense Geophysics Limited was contracted by Ridgeway Petroleum Corporation to provide a detailed, precision, low level helicopterborne magnetic survey over twenty two selected target areas of interest, east of Peace River, Alberta. Surveys were flown between February 27 and March 12, 1997 from a base established in Peace River airport. Approximately 2,950 line kilometers of total field magnetic data was collected. The survey was flown at a line spacing of 50 m with an altitude of 20 m for the magnetic sensor. Details of survey are presented as Appendix 'C', "Logistics Report for a Detailed Helicopter Magnetic Survey over Twenty Two Targets Near Peace River, Alberta by High-Sense Geophysics Limited".

The magnetic targets identified and flown are identified by anomaly number in Table 2 and shown on Map 4. These anomalies were initially identified in 1993 (Marchand, 1995) where analysis of the filtered magnetic maps and profiles produced a total of 26 significant anomalies. The anomalies were located on air photos and none appeared to have any obvious correlation with man-made structures. These anomalies start close to surface and continue to at least 200-300 m depth and with a width of approximately 200 m. This is the type of signature envisioned for a pipe-like kimberlite intrusion and is not representative of any other known geological feature in the area. The anomalies that were eventually drilled in 1995 (Marchand, 1995) were depth modelled which indicated that the top of the anomaly should be within 50 metres of surface and continue down to at least 200 metres depth. In 1995 four of the five priority anomalies (17,18,19,20,26) resulting from this analysis were diamond core drilled (Map 4) (Marchand, 1995).

The 1997 survey was flown to cover the identified magnetic anomalies from the 1993 Aerodat magnetic survey which was flown at 100 m line spacing from a fixed wing aircraft. The anomalies from the 1993 survey had been chosen after enhanced filtering and some depth modeling by a geophysical consultant. These filtered maps show some of the same general features, albeit in much less detail, as the current High-Sense Geophysics Limited maps (Map Pocket). However the detail available and the significant magnetic texture observed in the new maps better defines some of the current anomalies and provide much more information on the structure and possible geology of the area. The quality and accuracy of the 1997 survey is such that no ground survey will be required to

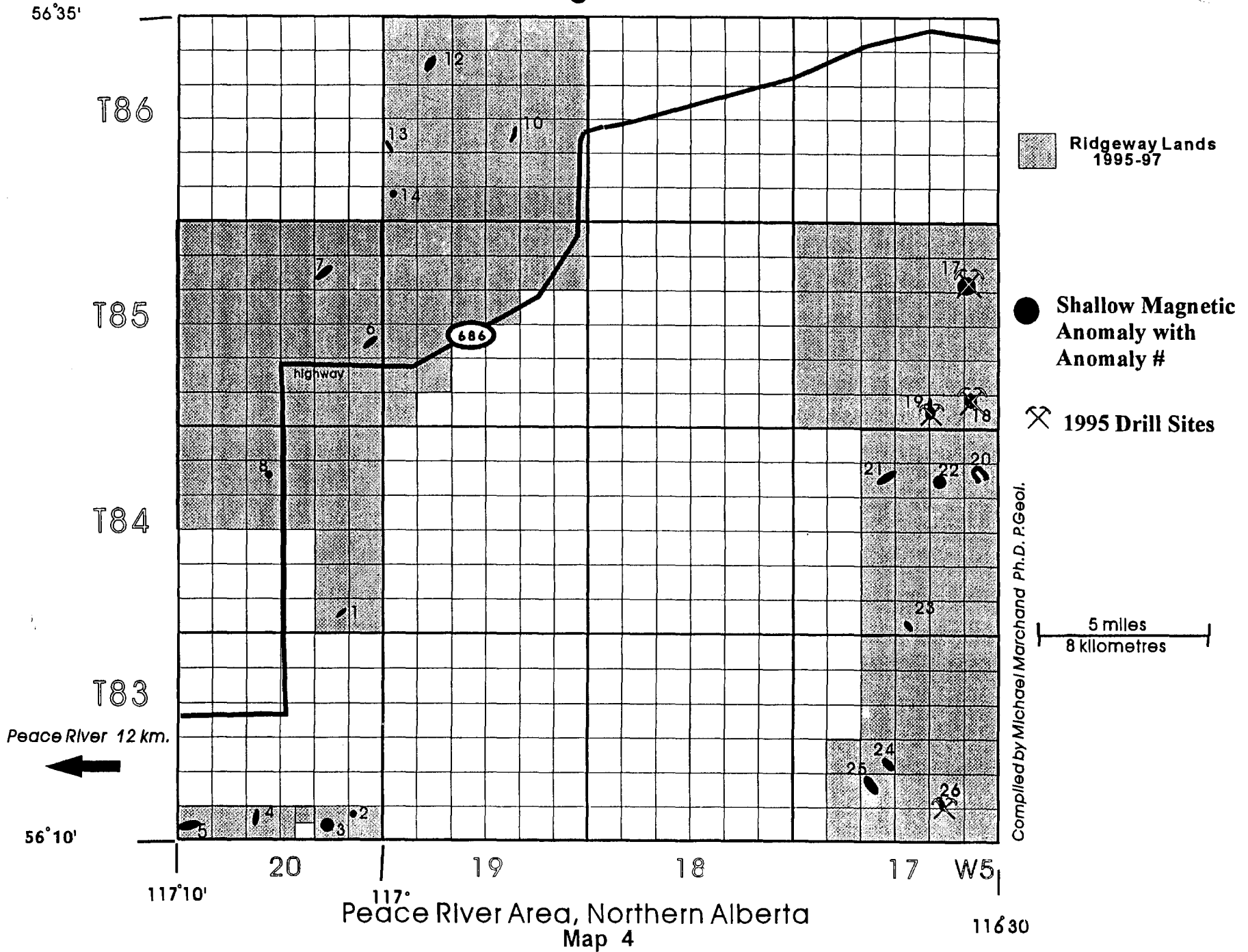
Table 2

Aeromagnetic Survey - 1997 - Anomaly Rating

Northing	Easting	Twp	Rge	Priority Level	Anomaly #
6234400	498000	84	20	M	1
6225000	499100	83	20	L	2
6224100	497150	83	20	M	3
6224800	493750	83	20	L	4
6224100	490000	83	20	M	5
6246800	499200	85	20	M	6
6250200	496785	85	20	0	7
6240900	494200	84	20	M	8
6256600	506000	86	19	0	10
6260200	501800	86	19	L	12
6256600	499900	86	19	0	13
6254000	500500	86	19	0	14
6250280	527520	85	17	H	17
6244450	527800	85	17	H	18
6244000	525800	85	17	M	19
6241380	528900	84	17	H	20
6240800	523950	84	17	H	21
6240400	526025	84	17	M	22
6234000	524900	84	17	0	23
6227200	523800	83	17	L	24
6226400	522900	83	17	L	25
6225560	526200	83	17	M	26
	Anomaly Rating Legend				
	0	Zero or very low Priority			
	L	Low Priority			
	M	Medium Priority			
	H	High Priority			

Ridgeway Petroleum Corp. - Horseshoe Gold Mining Inc.

1997 - Aeromagnetic Anomalies



site any proposed drill holes. In some areas there is so much magnetic texture and character that it is difficult to pick out potential anomalies that may be obscured without additional geophysical processing and modeling.

The area was flown as separate *map sheets* containing one or more anomalies (targets). The terms targets and anomalies are used synonymously in this report. These will be reviewed below on a map sheet by map sheet basis in approximate order of decreasing importance. The anomalies were reviewed and categorized by visual inspection of the maps (Map Pocket) and then compared to the previous maps (Marchand, 1995). No additional processing of the data has been done at this time. A number of the maps sheets need to have additional geophysical processing and modeling carried out on them as they contain significant anomalies and magnetic patterns prior to drilling. This process has the potential to uncover additional anomalies worthy of drilling.

Geophysical modeling mentioned in the recommendations below refers to a process of filtering the magnetic profiles and carrying out depth modeling on selected results from the filtering. This process is the same procedure that they carried out on the original 1993 survey data. It was very successful in pinpointing the anomalies of particular interest rapidly and needs to be carried out on the new data on many of the map sheets and anomalies identified below.

Conclusions and Recommendations:

The survey confirms the presence of 17 prospective targets that require drilling to test for the presence of kimberlite. Computer-assisted geophysical modeling should be carried out on a number of map sheets and anomalies before any field activities. The drill core from the drilling in 1995 should be closely examined for traces of crater facies of kimberlite. Magnetic susceptibility measurements of sections of the drill core should be made if feasible in order to use those values for more precise magnetic modeling. A significant feature interpreted as a major fault zone was identified on Map Sheet - Targets 18, 19, 20, 21, 22 , extending across the whole map sheet in a NE-SW direction and up to 300 m in width. The anomalies are reviewed individually below and reference the map sheet in the map pocket by name. (IE. Targets XX).

	Anomaly Number	Total # of Anomalies
Anomaly rating - H - High	17,18,20,21	4
M - Medium	1,3,5,6,8,19,22,26	8
L - Low	2,4,12,24,25	5
0 - Very Low	7,10,13,14,23	5

Map Sheet - Target 17**Rated - H**

The prime visual anomaly stands out sharply on the map. It is of an approximate size 200 x 300 m and occurs along a significant structural feature. The surface expression of this target has a tonal fingerprint on the air photo. It was diamond drilled in 1993 but drilling was very troublesome because a high pressure artesian water flow was intersected allowing only a 1 foot penetration of the bedrock. This renders the hole as inconsequential and does not disqualify this anomaly from additional serious consideration. It needs to be properly drilled with several holes. Depth modeling of the new magnetic data should be carried out on the anomaly.

Map Sheet - Targets 18, 19, 20, 21, 22**General Comments:**

Magnetic patterns are very prominent on this map sheet. There is a major NE-SW linear feature that extends from one edge of the map to the other, a distance of 8 km. Coordinates of the end points are 56°18' 22" 116°36' 26"; 56°21' 16" 116°32' 00".

Anomaly 18**Rated - H**

This is a complex and significant magnetic feature that has a potential size of 200 x 300 m. It occurs along a major linear feature that extends from one edge of the map to the other, a distance of 8 km. This feature appears to have a variable width up to 300 m wide size in places. This feature

trends in a NE-SW direction and may be a significant shear zone. This anomaly was drilled to a depth of 159 m in 1995 and did not appear to intersect kimberlite. However as we now know that kimberlites can be very complex bodies and a single hole into such a significant looking feature is not adequate to test it. Geophysical modeling of this feature should be carried out prior to the additional drilling which warranted.

Anomaly 21

Rated - H

Anomaly 21 (150 x 350 m) lies along the southern portion of the same shear zone as mentioned above for anomaly 18 which makes it an interesting anomaly worthy of geophysical modeling.

Anomaly 19

Rated - M

Anomaly 19 (200 x 150 m) lies to the north and adjacent to the above mentioned shear zone on a possible subsidiary structure. It occurs in a zone of complex anomalies. Not only should anomaly 19 be subjected to geophysical modeling but so should the whole cluster of anomalies within 1.5 kilometer radius of this anomaly. Anomaly 19 was drilled in 1995 but only 6 m of bedrock was penetrated. Considering the shape of the anomaly, the drill could easily have missed the target and additional drilling is warranted if supported by the geophysical modeling.

Map Sheet - Target 20

Rated - H

Anomaly 20 is a horseshoe shaped complex of magnetic highs around a central low. Portions of these anomalies form part of a linear feature; one lobe appears to be more circular. The size of this complex is significant being 600 x 200 m on one lobe and 200 x 300 m on the other lobe. This whole cluster of anomalies should be geophysically modeled and analyzed ; a drilling decision being result driven but it would appear that some of the anomaly would definitely be worth drill testing.

Map Sheet - Target 22

Rated - M

Anomaly 22 is a relatively small 100 x 200 m anomaly that should be modeled and compared with other anomalies on this map sheet.

Map Sheet - Targets 24,25,26

General Comments:

There is a significant amount of magnetic texture the total field map. Geophysical filtering and modeling needs to be carried out throughout the map sheet to determine the sources of the magnetic features and to determine if potential for kimberlite intrusions exist. Subtle NW trending linears are evident on the map sheet.

Anomalies 24, 25, and 26 need to be modeled and re-interpreted in the context of the whole map sheet; other features may become targets as a result of this process.

Anomaly 24

Rated - L

Anomaly 24 appears very subtle on the total field map. The anomaly is 300 x 100 m in size and appear to lie on a subtle linear linking it to anomaly 25. This is a low priority anomaly.

Anomaly 25

Rated - L

Anomaly 25 is a 400 x 150 m magnetic feature on a subtle NW trending linear that extends about 4 km across the map sheet. This anomaly is irregularly shaped and is low priority.

Anomaly 26

Rated - M

Anomaly 26 is an intense anomaly 100 x 150 m in size and shows up well on the total field map. This anomaly was drilled in 1995. Dunvegan Formation sandstone with unusual rock clasts

was intersected. The area surrounding the anomaly is very active magnetically.

Map Sheet - Target 8

Rated - M

This 250 x 250 m anomaly is enigmatic and definitely needs to be followed-up with geophysical modeling and further examination.

Map Sheet - Target 6

Rated - M

This is a linear north-west trending anomaly and the improved definition of this magnetic survey downgrades this anomaly. The form is untypical for a pipe-shaped body but a dyke shaped body is possible. This anomaly is worthy of additional geophysical modeling.

Map Sheet - Target 1

Rated - M

This is a linear anomaly that appears to have a character unlike some of the other low priority linear anomalies. This one is in definite need of geophysical modeling

Map Sheet - Target 5

Rated - M

The texture and shape of this anomaly is not obviously favourable to be a kimberlite as it appears in stream valleys and appears that it may reflect a sedimentary horizon. However its size is such that a kimberlite could be contained within it. It needs to be modeled geophysically.

Map Sheet - Target 2

Rated - L

This anomaly takes the texture and shape of the NW trending magnetic linears on the map. While this makes the anomaly of lower priority, its size of 250 x 300 m makes it permissive to contain a kimberlite body. It needs to be modeled geophysically.

Map Sheet - Target 4

Rated - L

This anomaly is in an area of linear magnetic features but its direction goes against the magnetic grain of the area . While it is of low priority, it should be modeled geophysically.

Map Sheet - Target 3

Rated - L

This anomaly is at the intersection of two significant magnetic linears and appear possibly to be part of another structure. Geophysical modeling and additional examination of this anomaly is warranted.

Map Sheet - Target 12

Rated - L

This anomaly lies in an area of complex magnetic features and textures, which may include a fault intersection. Anomaly is small and linear and probably not of kimberlitic origin.

Map Sheet - Target 13

Rated - 0

Anomaly is small with no obvious depth component on an apparent significant fault feature. Its is unlike to be related to an intrusion of kimberlitic affinity.

Map Sheet - Target 14

Rated - 0

Anomaly appears to be shallow and small and does not warrant any further work at this time.

Map Sheet - Target 7

Rated - 0

This anomaly is a very strong feature but suggestive of an origin within the sedimentary units and not typical of kimberlitic intrusions.

Map Sheet - Target 23

Rated - 0

This small anomaly represents one end of a NW trending linear magnetic feature. It does not look like the signature of a kimberlitic body.

Map Sheet - Target 10

Rated - 0

This anomaly is a linear anomaly along a stream valley and the improved definition downgrades this anomaly; it is unlikely to represent a kimberlitic source.


CERTIFICATE

I, Michael Marchand, of [REDACTED] in the City of Calgary in the Province of Alberta, do hereby certify that:

1. I am an independent Consulting Geologist.
2. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
3. I am graduate of McGill University, B.Sc. (honours) Geology 1967, M.Sc. Geology 1970 and a graduate of McMaster University with a Ph.D. Geology 1976.
4. I have worked continually in the Geosciences for the past 22 years.
5. I do own a royalty on the permits described in this report and do have a minor holding in stock of Ridgeway Petroleum Corp.
6. I am the author of this report entitled "Exploration Program on the Horseshoe Property, Peace River Area, Alberta", dated June 25, 1997.

Dated at Calgary, Alberta this 25 th day of June, A.D. 1997.

Respectfully Submitted,



Michael Marchand, B.Sc., M.Sc, Ph.D., P.Geol



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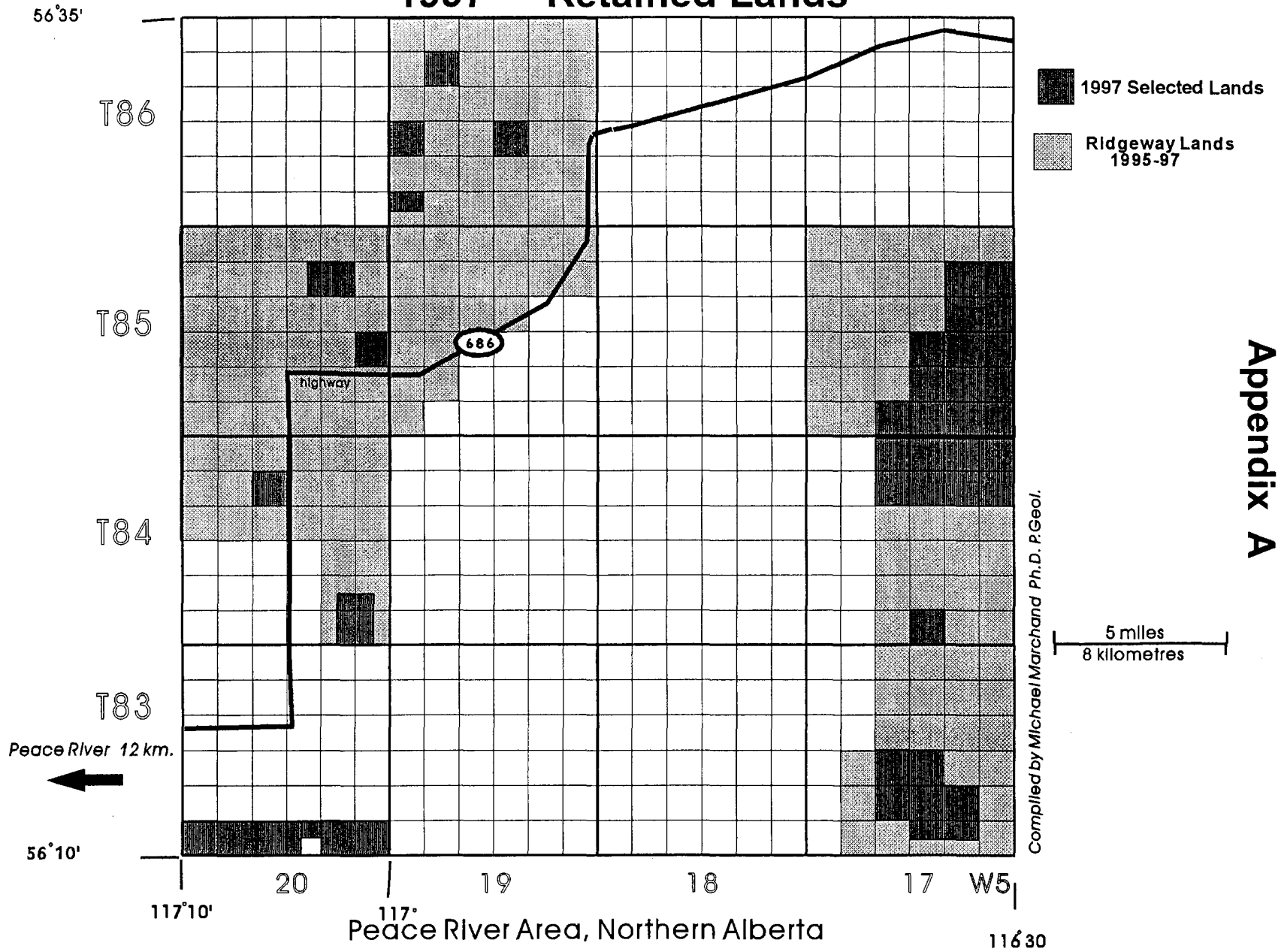
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Appendix A

Allocation of Exploration Expenses						
Exploration Expenses		\$113,700.00			Selected Land 1997	
Add on	\$755.58	previously transferred to permit 9393030126				
Permit number	Date Issued	1995-97 Land Description	1995-1997 Area (ha)	1997 Selected Areas	1997 Area (ha)	Exploration Expenses
9393030126	Mar 12 1993	5-17-083: 1-5, 8-17, 21-28, 33-36	9216	5-17-083: 2N, 3N, 9-11, 15, 16	1536	\$15,360.00
9393030127	Mar 12 1993	5-20-083: 1;2;3N, SW; 4-6	7296	5-20-083: 1;2;3N, SW; 4-6	1472	\$14,720.00
9393030128	Mar 12 1993	5-17-084: 1-4, 9-16, 21-28, 33-36	9216	5-17-084: 3, 25-28, 33-36	2304	\$23,040.00
9393030129	Mar 12 1993	5-20-084: 1-2, 11-14; 19-36	9024	5-20-084: 1W, 2E, 11SE, 12SW, 28	640	\$6,400.00
9393030130	Mar 12 1993	5-17-085: 1-36	9216	5-17-085: 1-4, 10-12, 13-15, 23-26	3584	\$35,840.00
9393030131	Mar 12 1993	5-19-085: 6-8, 17-22, 25-36	9216	Drop whole permit	0	\$0.00
9393030132	Mar 12 1993	5-20-085: 1-36	9216	5-20-085: 13, 26, 27E	640	\$6,400.00
9393030135	Mar 12 1993	5-19-086: 1-36	9216	5-19-086: 6N, 15, 18, 29	896	\$8,960.00
Unallocated expenditures \$3,735.58				Total	11072	\$110,720.00
Transfer unallocated expenditures to Permit 9393030130 for remaining period of permit						

Ridgeway Petroleum Corp. - Horseshoe Gold Mining Inc. 1997 - Retained Lands



Appendix A

Compiled by Michael Marchand Ph.D. P.Geol.

Appendix B

**Ridgeway Petroleum Corp.
Horseshoe Gold Mining Inc.
Peace River Area, Alberta
Permit Nos. 9393030126-32; 35
Statement of Expenditures**

Airborne Geophysics

High-Sense Geophysics Limited	\$109,200.00	\$109,200.00
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Geological Consulting

 Aug 1995	\$3,500.00	
 Mar 1997	\$1,000.00	\$4,500.00

Total	\$113,700.00
GST	\$7,644.00
Grand Total	\$121,344.00

I certify that these expenses are true and were expended for assessment of the above listed permits


Michael Marchand Ph.D. P. Geol.

Appendix C

**Logistics
Report**

for a

Detailed Helicopter Magnetic Survey

over

**Twenty Two Targets Near
Peace River, Alberta**

carried out on behalf of

Ridgeway Petroleum Corporation

by

High-Sense Geophysics Limited



Toronto, Canada
March, 1997
970220-4
(Peace River, Alberta)

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1. INTRODUCTION

In February of 1997, High-Sense Geophysics Ltd. was contracted by Ridgeway Petroleum Corporation to provide a detailed, precision, low level helicopterborne magnetic survey over twenty two selected targets of interest, east of Peace River, Alberta. Surveys were flown between February 27 and March 12, 1997 from a base established in Peace River airport. Approximately 2,950 line kilometers of total field magnetic data was collected, processed and plotted on-site.

The technical objective of the survey was to provide 'in-field' preliminary magnetic maps with a resolution comparable to ground surveys, suited for target delineation, detailed structural evaluation and identification of lithologic trends. Fully corrected magnetic maps were prepared by High-Sense's Toronto office after completion of survey activities.

2. LOCATION

The twenty two targets are scattered in a 40x40 km area 20 km east of Peace River, northern Alberta, please see a schematic layout of all targets in Appendix B. Within the targeted area, terrain is generally flat, overlain by a thick northern pine forest of average 90 ft. in height. Some targets cover private established build-up areas, notably targets 1, 2, 4, 5, 6, and 8.

UTM coordinates (NAD 27 Zone 11 - central meridian 117°W) for the the targets are listed below:

Target 1

Corner No.	Easting (m)	Northing (m)
1	497200	6232850
2	497200	6235950
3	498800	6235950
4	498800	6232850

Target 2

Corner No.	Easting (m)	Northing (m)
1	498300	6223450
2	498300	6226550
3	499900	6226550
4	499900	6223450

Target 3

Corner No.	Easting (m)	Northing (m)
1	496350	6222050
2	496350	6225150
3	497950	6225150
4	497950	6222050

Target 4

Corner No.	Easting (m)	Northing (m)
1	492950	6223250
2	492950	6226350
3	494550	6226350
4	494550	6223250

Target 5

Corner No.	Easting (m)	Northing (m)
1	489200	6222050
2	489200	6225150
3	490800	6225150
4	490800	6222050

Target 6

Corner No.	Easting (m)	Northing (m)
1	498400	6245250
2	498400	6248350
3	500000	6248350
4	500000	6245250

Target 7

Corner No.	Easting (m)	Northing (m)
1	495985	6249150
2	495985	6252250
3	497585	6252250
4	497585	6249150

Target 8

Corner No.	Easting (m)	Northing (m)
1	493400	6239350
2	493400	6242450
3	495000	6242450
4	495000	6239350

Target 10

Corner No.	Easting (m)	Northing (m)
1	505200	6255050
2	505200	6258150
3	506800	6258150
4	506800	6255050

Target 12

Corner No.	Easting (m)	Northing (m)
1	501000	6258650
2	501000	6261750
3	502600	6261750
4	502600	6258650

Target 13, 14

Corner No.	Easting (m)	Northing (m)
1	499200	6252500
2	499200	6258200
3	501300	6258200
4	501300	6252500

Target 17

Corner No.	Easting (m)	Northing (m)
1	525770	6248480
2	525770	6252080
3	529270	6252080
4	529270	6248480

Target 18,19,20,21,22

Corner No.	Easting (m)	Northing (m)
1	523000	6240000
2	523000	6243000
3	525000	6243000
4	525000	6245200
5	529700	6245200
6	529700	6240000

Target 23

Corner No.	Easting (m)	Northing (m)
1	524100	6232450
2	524100	6235550
3	525700	6235550
4	525700	6232450

Target 24,25,26

Corner No.	Easting (m)	Northing (m)
1	521600	6225400
2	521600	6228400
3	527000	6228400
4	527000	6224400
5	524000	6224400
6	524000	6225400

3. AIRCRAFT AND EQUIPMENT

3.1 Aircraft

The aircraft used was a Bell 206B jet ranger helicopter (C-FJAD) owned and operated by Great Slave Helicopters, Yellowknife, N.W.T. Installation of the geophysical and ancillary equipment was carried out by personnel of High-Sense Geophysics Limited.

3.2 Airborne Geophysical System

3.2.1 Magnetometer

The High-Sense GFCS-II flight control system was coupled with an optically pumped cesium split beam sensor (Scintrex H-8) - the latter mounted in the nose of the towed bird. The Larmor frequency output was processed by a High-Sense magnetometer counter board that provides a resolution of 0.01nT with a noise level of better than 0.1nT and a sampling rate of ten times per second.

3.2.2 Electronic Navigation

A Novatel 3951R twelve channel GPS, and LANDSTAR real time differential receivers, which are integral parts of the HS-GFCS-II system, was utilized for flight control. The GPS and LANDSTAR receivers were mounted on the towed bird to provide more precise magnetometer positioning.

3.2.3 Altimeter

A Terra 3500 radar altimeter was mounted on the towed bird. This instrument operates to zero clearance and records the terrain clearance of the helicopter.

3.2.4 Geophysical Flight Control System

The High-Sense GFCS-II geophysical flight control system monitored and recorded magnetometer, altimeter and GPS equipment. Input from the various sensors was monitored every 0.005 seconds for precise coordination of geophysical and position measurements. GPS position coordinates and terrain clearance of the towed bird were presented to the pilot by means of LCD touch screen display.

The magnetometer response, the 4th difference, and altimeter profile were also shown on the LCD touch screen display for real time monitoring of equipment performance.

3.2.5 Digital Recording

The output of the magnetometer and altimeter, real time differentially corrected UTM positions as well as the uncorrected GPS coordinates, were recorded digitally on disk at a sample rate of ten times per second by the HS-GFCS-II system. Line number, GPS time and system time were also recorded for use during subsequent differential GPS correction using our own base monitoring station data.

3.3 Ground Monitoring System

3.3.1 Magnetometer

A GEM Systems Overhauser magnetometer (GSM19W) was operated as a base station to record diurnal variations of the earth's magnetic field. Readings with a resolution of 0.1 nT were recorded digitally every second, and synchronized with GPS time for accurate correction of the airborne data.

3.3.2 GPS Monitor

A Novatel 3751 twelve channel receiver with a fixed antenna was also active at the base of operations. Raw satellite data was digitally recorded to enable differential correction of the corresponding uncorrected airborne GPS data.

3.3.3 Recording

The output of the magnetic and GPS monitors was recorded digitally on a dedicated PC. A visual record of the last forty minutes of activity is graphically maintained on the computer screen to provide an up-to-date appraisal of significant activity. At the conclusion of each production flight, raw GPS and magnetic data were transferred to the main compilation computer.

3.4 Field Compilation System

A Pentium PC computer and a Hewlett Packard DeskJet colour printer were used for field data processing and presentation. Processing software and procedures were developed by High-Sense Geophysics Limited, and include the Geopak RTICAD imaging system.

4. PERSONNEL

4.1 Field Operations

High-Sense project geophysicist	: Karl Kwan, M.Sc.
Helicopter pilot	: Rick Gerundin
Great Slave Helicopter engineer	: Casey Ling

4.2 Project Management

Ridgeway Petroleum Corp. Calgary office	: Walter B. Ruck
	: Dr. Michael Marchand
High-Sense, Toronto office	: Ted Urquhart, Ph.D.
	: D. Blair Walker, B.Sc.

5. SURVEY PARAMETERS

Traverse Line spacing	: 50 m
Control Line spacing	: 500 m
Nominal Terrain clearance	: 20 meters sensor height 40 meters aircraft height
Navigation	: Real-time differential GPS
Traverse Line direction	: NS
Control Line direction	: EW
Measurement interval	: 0.1 sec
Airspeed (nominal)	: 70 mph (115 km/hr)
Measurement spacing (nominal)	: 10 feet (3.1 meters)
Airborne Digital Record	: Radar Altimeter Total Field Magnetics Time (Local and GPS) Raw Global Positioning System (GPS) data
Base Station Record	: Ambient Total Field Magnetics

(no pre-established activity limit)
Raw Global Positioning System (GPS) data
Time (Local and GPS)

6. OPERATIONS AND PROCEDURES

6.1 Flight Planning

Target outlines were specified by Ridgeway Petroleum Corp. (section 2.0), and the coordinates used to generate pre-calculated navigation files. These, in turn, were used by the airborne data acquisition system to plan flights at the designated line spacings. Additional information is provided in Appendix A.

6.2 Base Station

During the course of survey operations, a magnetic and GPS base station site was established at Peace River airport. The GPS antenna should be located at an accurately surveyed position point, since positional errors are carried through to the differentially corrected data. Because no control point was available, the location of the GPS antenna was determined by recording several hours of GPS data and averaging the resulting antenna coordinates (the assumption being that deliberate errors introduced by military 'selective availability' satellite signal distortion will average to zero over a long period of time).

The position fix determined for the base station was :

56° 13' 48.5000" N	565 m asl
117° 27' 0.5000" W	(WGS 84 spheroid)

6.3 Data Compilation

Data recorded by the airborne and base station systems was transferred to the field compilation system. As each flight and/or area was completed, the following compilation operations were carried out.

6.3.1 Flight Path Correction

The airborne GPS data was differentially corrected to remove errors introduced by 'selective availability', an intentional accuracy degradation method used by the military. The correction process uses the known fixed location of the base station to calculate the error associated with each satellite. These errors are then removed from the survey GPS data enabling a position to be calculated with an accuracy in the order of three meters,

with four or more satellites in view. Satellite visibility and coverage was good throughout field operations. Both GPS receivers were generally tracking a minimum of eight satellites.

The navigational correction process yields a flight path expressed in WGS 84 Latitude-Longitude coordinates. Transformation to local Clarke 1866 UTM coordinates used the following projection parameters :

	Semi-major axis (a)	Flattening (f)
WGS 84	6378137.0	298.257223563
Clarke 1866	6378206.4	294.9786982

Local datum shift applied :

Delta X	:	7
Delta Y	:	-162
Delta Z	:	-188

UTM central meridian = 117° W (Zone 11)

False Easting	:	500,000
False Northing	:	0

6.3.2 Magnetic Corrections

The diurnal variations recorded by the base station were subtracted directly from the aeromagnetic measurements to provide a first order diurnal correction. When the magnetic variations are noted to occur due to man-made causes, such as equipment passing by the sensor, they are edited out prior to applying the diurnal correction.

Optically pumped magnetic sensors have an inherent heading error, typically several nanoTeslas peak-to-peak, as the sensor is rotated through 360 degrees. On reciprocal flight line directions the heading error is reasonably predictable; corresponding correction was made on the basis of aircraft heading.

Control lines spaced at variable intervals were flown parallel to the long axis of the survey areas, to be used as a second order, final diurnal correction. Residual differences between the control and traverse lines were used to carry out a further refinement of diurnal and heading errors.

A sloping linear datum correction was applied to the profile data to provide the final levelled values.

6.3.3 Map Products and Digital Data

Corrected preliminary total field magnetic maps (1:10,000) were produced on-site immediately following completion of each target.

Following processing in the Toronto office, final map products, plus final digital data (CD-ROM), extraction software and this logistics report were delivered to Ridgeway Petroleum.

1. 1:10,000 black and white flight paths with UTM reference grid - 1 mylar copy,
2. 1:10,000 total field intensity magnetics colour image with contours, flight paths, and UTM reference grid - 5 paper copies,
3. 1:10,000 total field intensity magnetics contours with flight path and UTM reference grids - 5 paper copies, 1 mylar copy.
4. 1:10,000 calculated vertical derivative colour image with contours, flight paths, and UTM reference grid - 5 paper copies.

6.3.4 Ground Reference Markers

No ground reference markers were positioned within, or adjacent to, any of the survey areas.

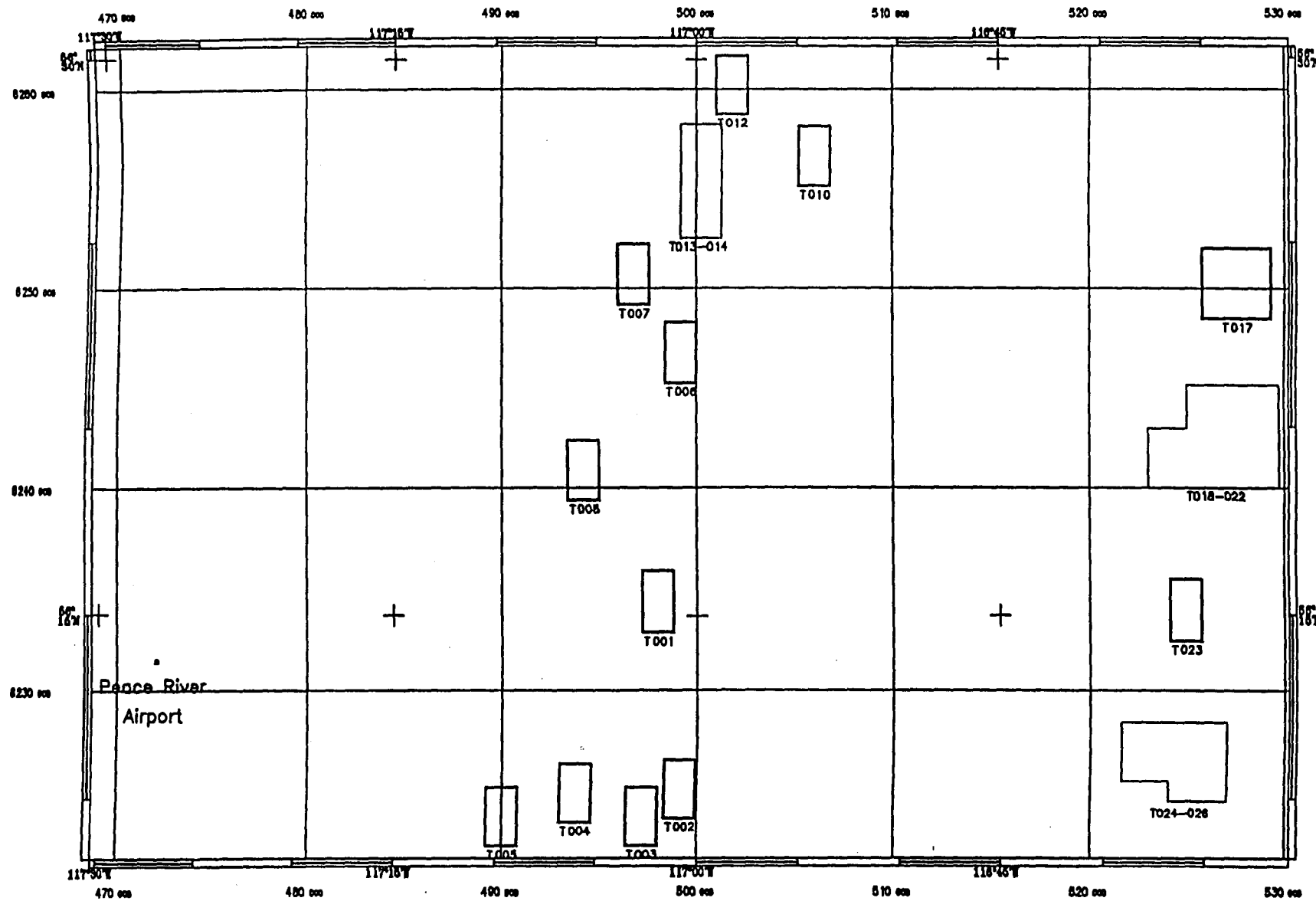
Respectfully submitted



Karl Kwan, M.Sc.
Geophysicist

APPENDIX A: TARGETS SUMMARY

<u>Target Number</u>	<u>Survey line-kms</u>
1	119
2	115
3	114
4	100
5	108
6	87
7	120
8	96
10	121
12	121
13,14	279
17	299
18-22	702
23	121
24-26	452



APPENDIX B: TARGET LOCATION MAP

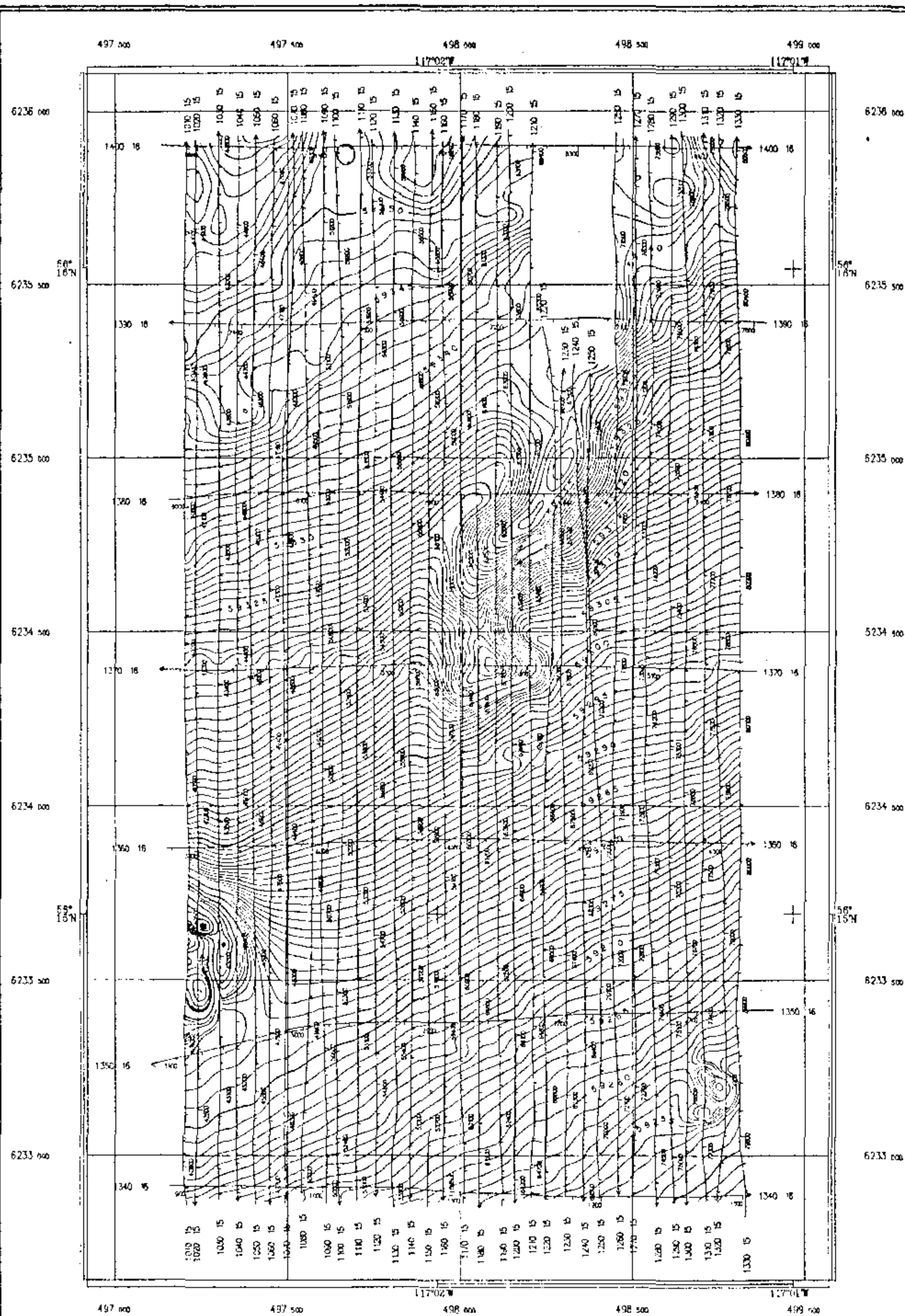
Target Layout Map

Map Pocket

Total Field Magnetics - 15 Maps

Target Number

1
2
3
4
5
6
7
8
10
12
13,14
17
18-22
23
24-26



SURVEY SPECIFICATIONS

Helicopter altitude: 40 m M.T.C.
 Mag sensor bird altitude: 20 m M.T.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

EQUIPMENT

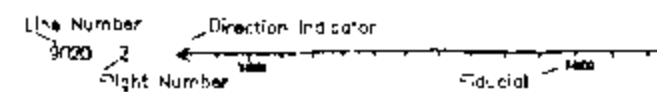
High-Sense MiniMag System with a GFCs II flight control system
 Magnetometer: Scintrex H-B cesium
 Radar Altimeter: Terra 2500
 GPS Navigation: Novatel 3051R

COMPILATION

FLIGHT PATH:

GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system.

Spheroid: CLARKE 1858 a=6378206.4900 b=6356583.8000
 Projection: Universal Transverse Mercator
 Local Datum Shift: Ax Ay Az = 7, -162, -188
 Central Meridian: 117°W



MAGNETICS:

The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line levelling.

The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

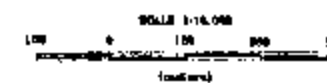
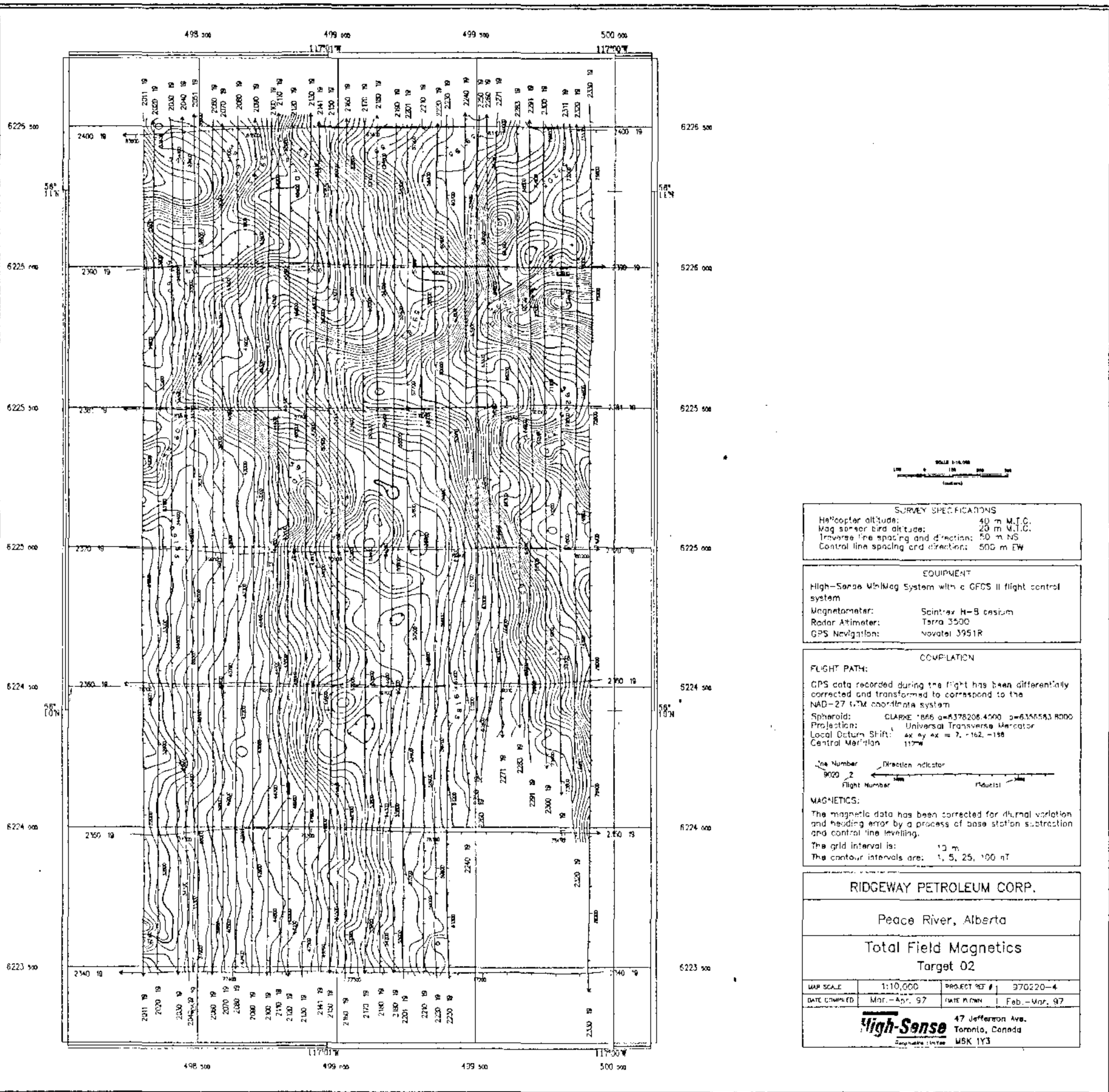
RIDGEWAY PETROLEUM CORP.

Peace River, Alberta

Total Field Magnetics
 Target G1

MAP SCALE	1:10,000	EMERGENCY REF #	970220-4
DATE COMPILED	Mar.-Apr. 97	DATE FLOWN	Feb.-Mar. 97

High-Sense 47 Jefferson Ave.
 Toronto, Canada
 MRK 1Y3



SURVEY SPECIFICATIONS

Helicopter altitude: 40 m M.T.C.
 Mag sensor bird altitude: 20 m M.T.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

EQUIPMENT

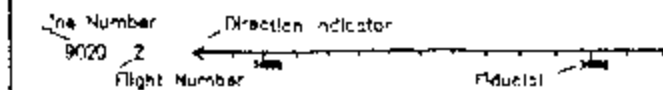
High-Sense MiniMag System with a GFC5 II flight control system
 Magnetometer: Scintrex H-8 cesium
 Radar Altimeter: Terra 3500
 GPS Navigation: Novatel 3951R

COMPILED

FLIGHT PATH:

GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system

Spheroid: CLARKE 1866 $a=6378206.4000$ $b=6356583.8000$
 Projection: Universal Transverse Mercator
 Local Datum Shift: dx dy $dz = 7, -162, -198$
 Central Meridian: 117°W



MAGNETICS:

The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line levelling.

The grid interval is: 10 m
 The contour intervals are: 5, 5, 25, 100 nT

RIDGEWAY PETROLEUM CORP.

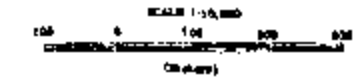
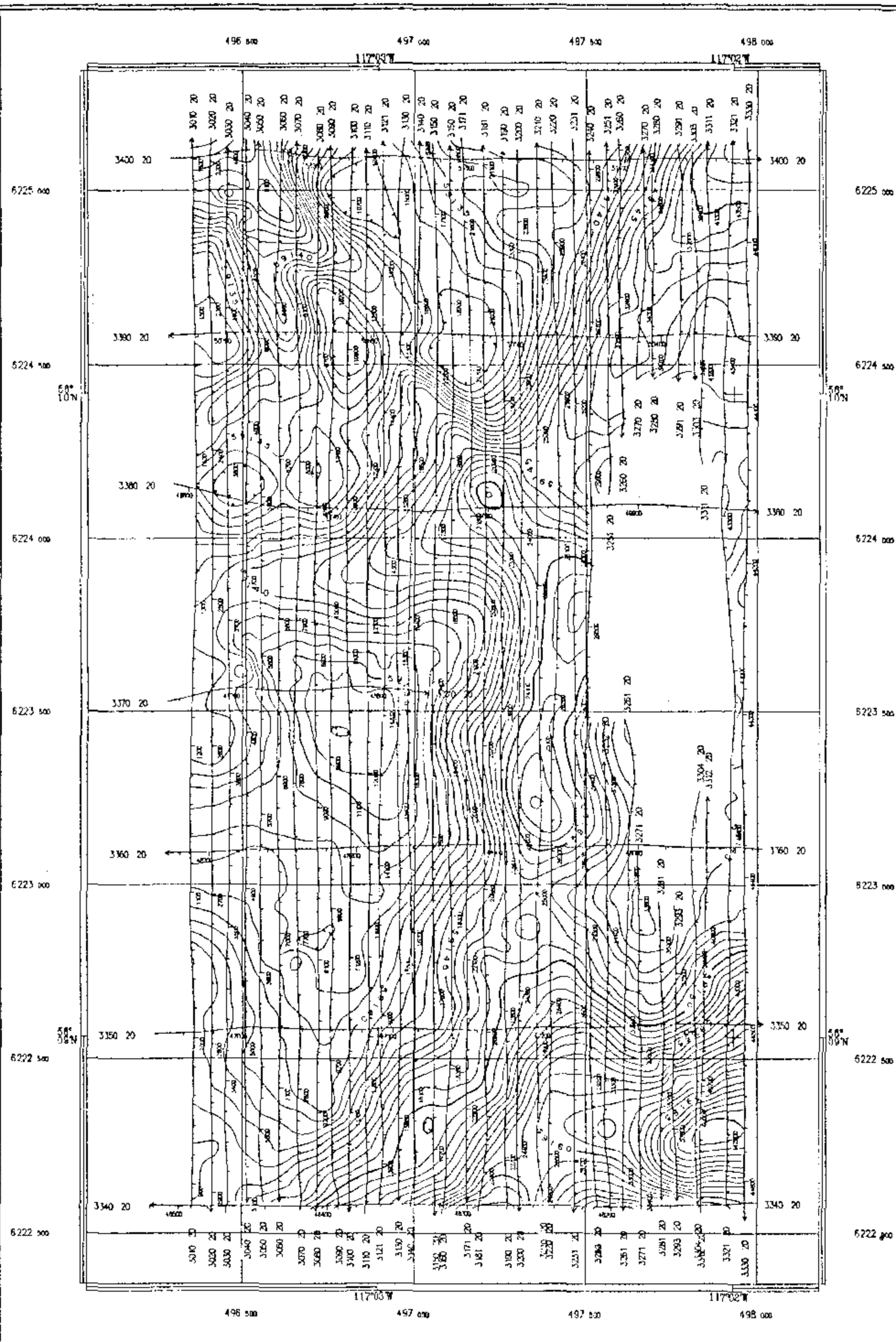
Peace River, Alberta

Total Field Magnetics
 Target 02

MAP SCALE	1:10,000	PROJECT REF #	970220-4
DATE COMPILED	Mar. - Apr. 97	DATE PLOTTED	Feb. - Mar. 97

High-Sense
 Geophysics Unit

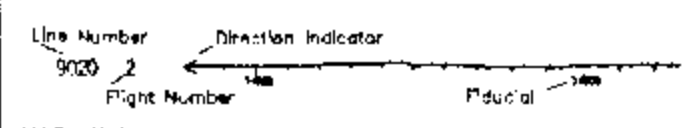
47 Jefferson Ave.
 Toronto, Canada
 M5K 1Y3



SURVEY SPECIFICATIONS
 Helicopter altitude: 40 m M.T.C.
 Mag sensor htd altitude: 20 m M.T.C.
 Traverse line spacing and direction: 50 m N.S.
 Control line spacing and direction: 500 m EW

EQUIPMENT
 High-Sense MiniMag System with a GCFS II flight control system
 Magnetometer: Scintrex H-B cesium
 Radar Altimeter: Terra 3500
 GPS Navigation: Novatel 3951R

COMPIATION
FLIGHT PATH:
 GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system
 Spheroid: CLARKE 1866 a=6378206.4000 b=6356583.8000
 Projection: Universal Transverse Mercator
 Local Datum Shift: $ax \ ay \ az = 7. -152. -156$
 Central Meridian: 117°W



MAGNETICS:
 The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line levelling.
 The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

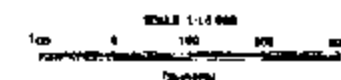
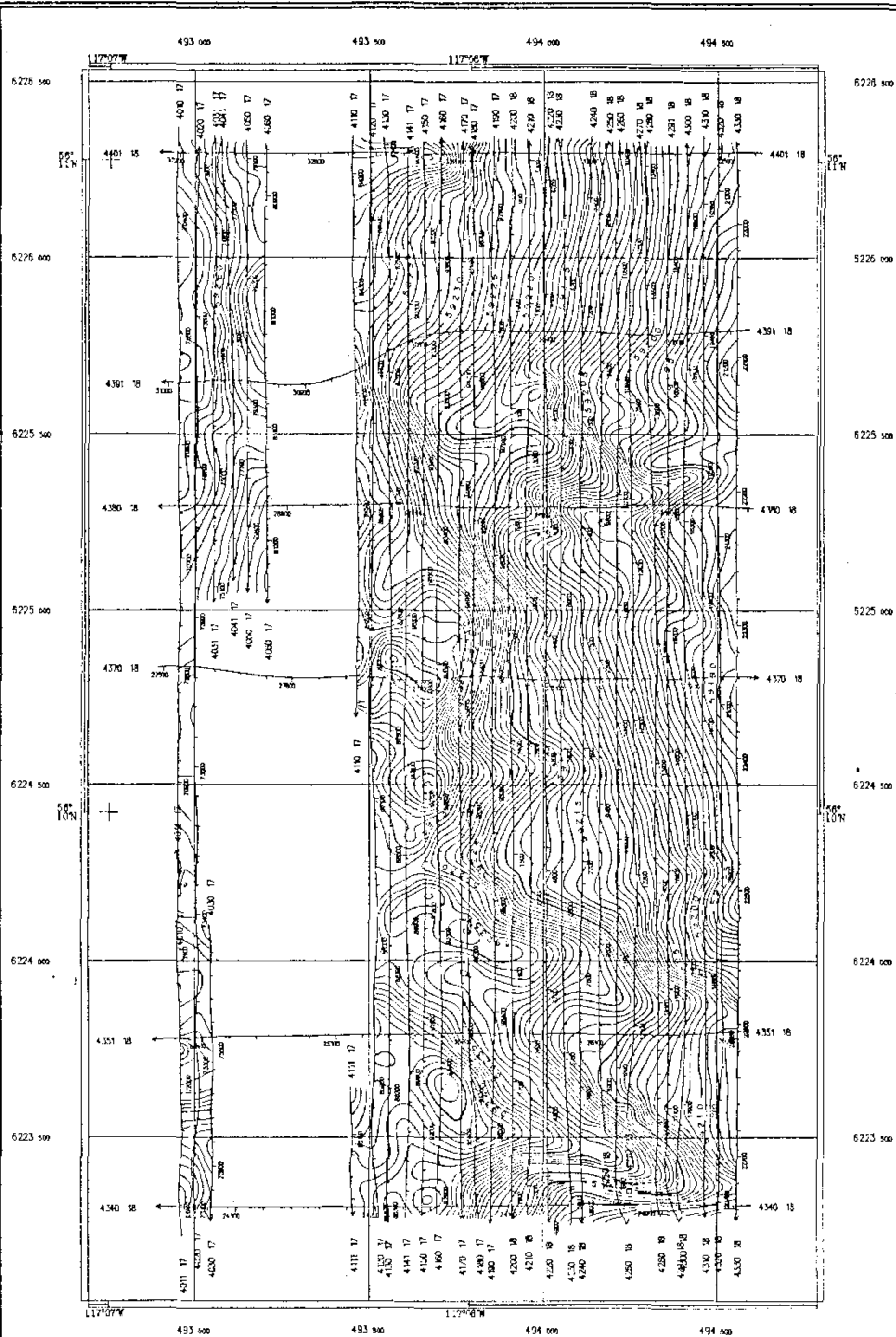
RIDGEWAY PETROLEUM CORP.

Peace River, Alberta

Total Field Magnetics
 Target 03

MAP SCALE	1:10,000	PROJECT REF #	970220-4
DATE COMPILED	Mar.-Apr. 97	DATE FLOWN	Feb.-Mar. 97

High-Sense 47 Jefferson Ave.
 Toronto, Canada
 MRK 1Y3



SURVEY SPECIFICATIONS

Helicopter altitude: 40 m M.T.C.
 Mag sensor bird altitude: 20 m M.T.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

EQUIPMENT

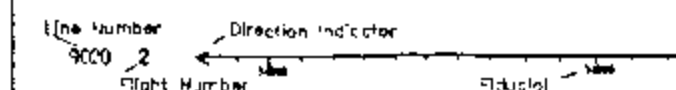
High-Sense Min'Mag System with a GFCS 1 flight control system
 Magnetometer: Scintrex H-8 cesium
 Radar Altimeter: Terra 3500
 GPS Navigation: Novatel 3951R

COMPIATION

FLIGHT PATH:

GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system

Spheroid: CLARKE '56B a=6378205.4000 b=6356583.8000
 Projection: Universal Transverse Mercator
 Local Datum Shift: Δx by Δy = 7, -162, -198
 Central Meridian: 117°W



MAGNETICS:

The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line leveling.

The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

RIDGEWAY PETROLEUM CORP.

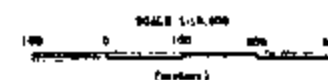
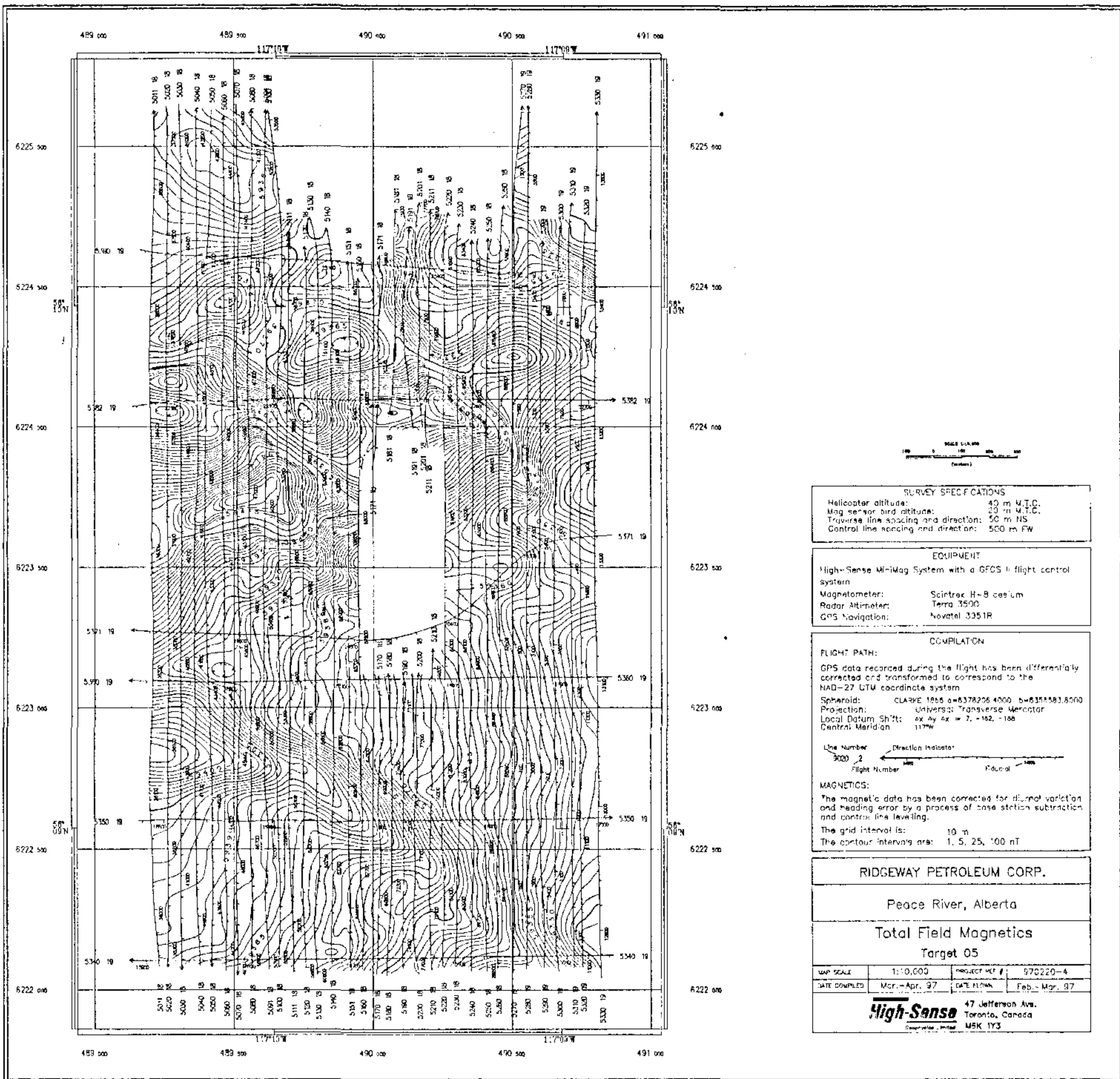
Peace River, Alberta

Total Field Magnetics

Target 04

MAP SCALE	1:10,000	PROJECT REF #	970220-4
DATE SAMPLED	Mar.-Apr. 97	DATE PLOWN	Feb.-Mar. 97

High-Sense 47 Jefferson Ave.
 Toronto, Canada
 M6K 1Y3



SURVEY SPECIFICATIONS

Helicopter altitude: 40 m M.T.C.
 Mag sensor bird altitude: 20 m M.T.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m FW

EQUIPMENT

High-Sense MiniMag System with a GFCOS II flight control system
 Magnetometer: Scintrex H-8 cesium
 Radar Altimeter: Terra 3500
 GPS Navigation: Novatel 3351R

COMPILATION

FLIGHT PATH:
 GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system
 Spheroid: CLARKE 1866 a=6378226.4000 b=6356583.8000
 Projection: Universal Transverse Mercator
 Local Datum Shift: $ax Ay Az = 7, -152, -188$
 Central Meridian: 117°W

Line Number 3020 2 Direction Indicator
 Flight Number E-W N-S

MAGNETICS:

The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line levelling.

The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

RIDGEWAY PETROLEUM CORP.

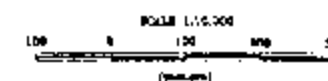
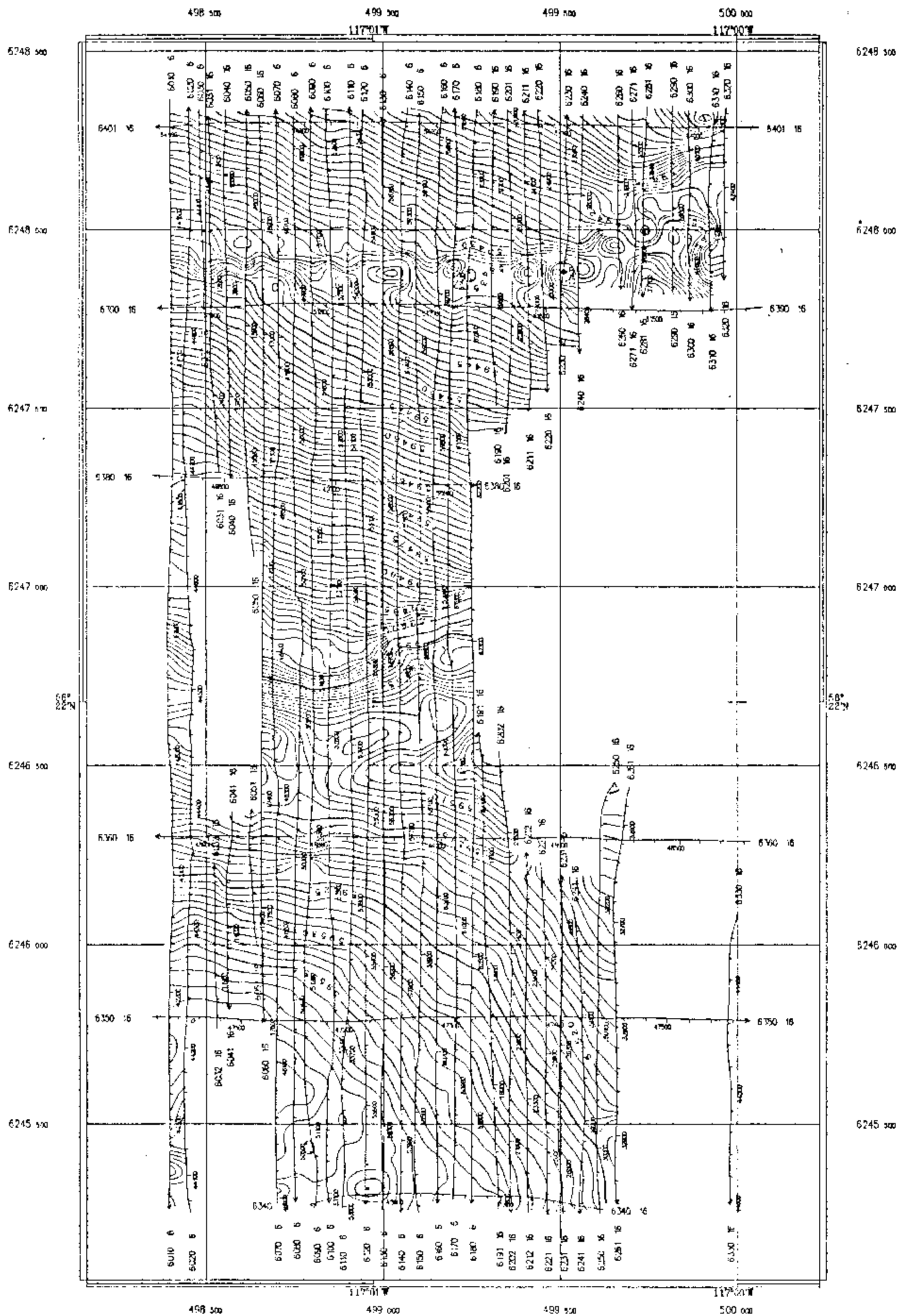
Peace River, Alberta

Total Field Magnetics
 Target 05

MAP SCALE	1:10,000	PROJECT REF #	970220-4
DATE COMPILED	Mar.-Apr. 97	DATE FLOWN	Feb.-Mar. 97

High-Sense
 Corporation Limited

47 Jefferson Ave.
 Toronto, Canada
 M5K 1Y3



SURVEY SPECIFICATIONS

Helicopter altitude: 40 m M.T.C.
 Mag sensor air altitude: 20 m M.T.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

EQUIPMENT

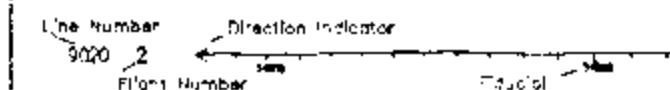
High-Sense MiniMag System with a GFCSS flight control system
 Magnetometer: Scintrex 4-B cesium
 Radar Altimeter: Terra 3500
 GPS Navigation: Novatel 3351R

COMPILATION

FLIGHT PATH:

GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system.

Spheroid: CLARKE 1866 $a=6378206.4000$ $b=6356583.6000$
 Projection: Universal Transverse Mercator
 Local Datum Shift: $\Delta x \Delta y \Delta z = 7, -162, -198$
 Central Meridian: 117°W



MAGNETICS:

The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line leveling.

The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

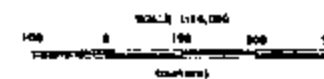
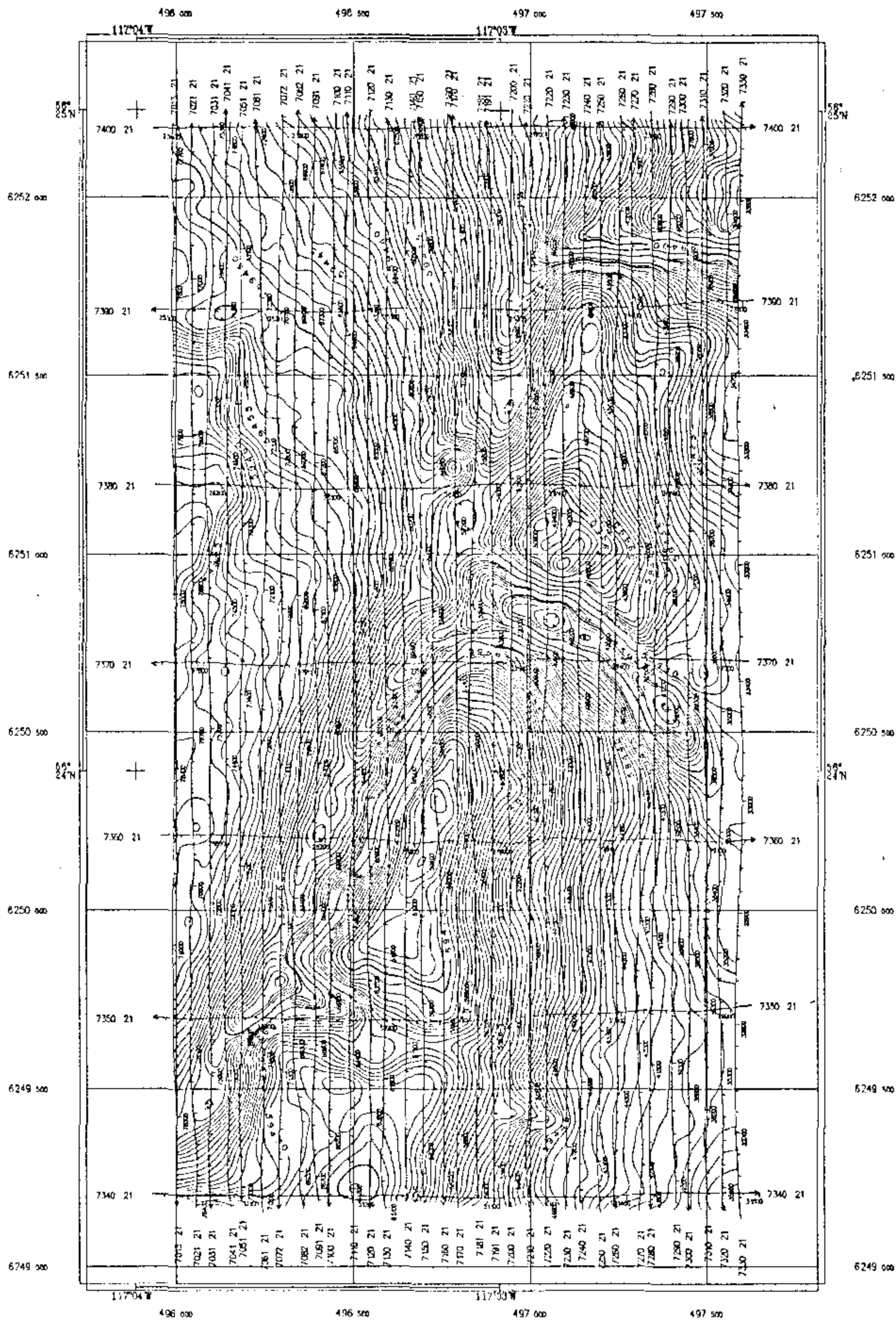
RIDGEWAY PETROLEUM CORP.

Peace River, Alberta

Total Field Magnetics
 Target 05

MAP SCALE	1:10,000	PROJECT #	970220-4
DATE COMPILED	Mar.-Apr. 97	DATE DRAWN	Feb.-Mar. 97

High-Sense
 Geophysical Limited
 47 Jefferson Ave.
 Toronto, Canada
 M8K 1Y3



SURVEY SPECIFICATIONS

Helicopter altitude: 40 m W.T.C.
 Mag sensor bird altitude: 20 m W.T.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

EQUIPMENT

High-Sense MiniMag System with a GFC5 II flight control system
 Magnetometer: Sontrex H-B cesium
 Radar Altimeter: Terra 3500
 GPS Navigation: Novatel 3951R

COMPILATION

FLIGHT PATH:

GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system

Spheroid: CLARKE 1856 a=6378206.4000 b=6355553.8000
 Projection: Universal Transverse Mercator
 Local Datum Shift: $\Delta x, \Delta y, \Delta z = 7, -102, -155$
 Central Meridian: 117°W

Line Number: 9120 2
 Flight Number: 2400
 Direction indicator: ←
 Elevation: 5000

MAGNETICS:

The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line levelling.

The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

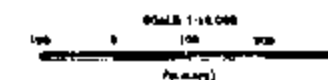
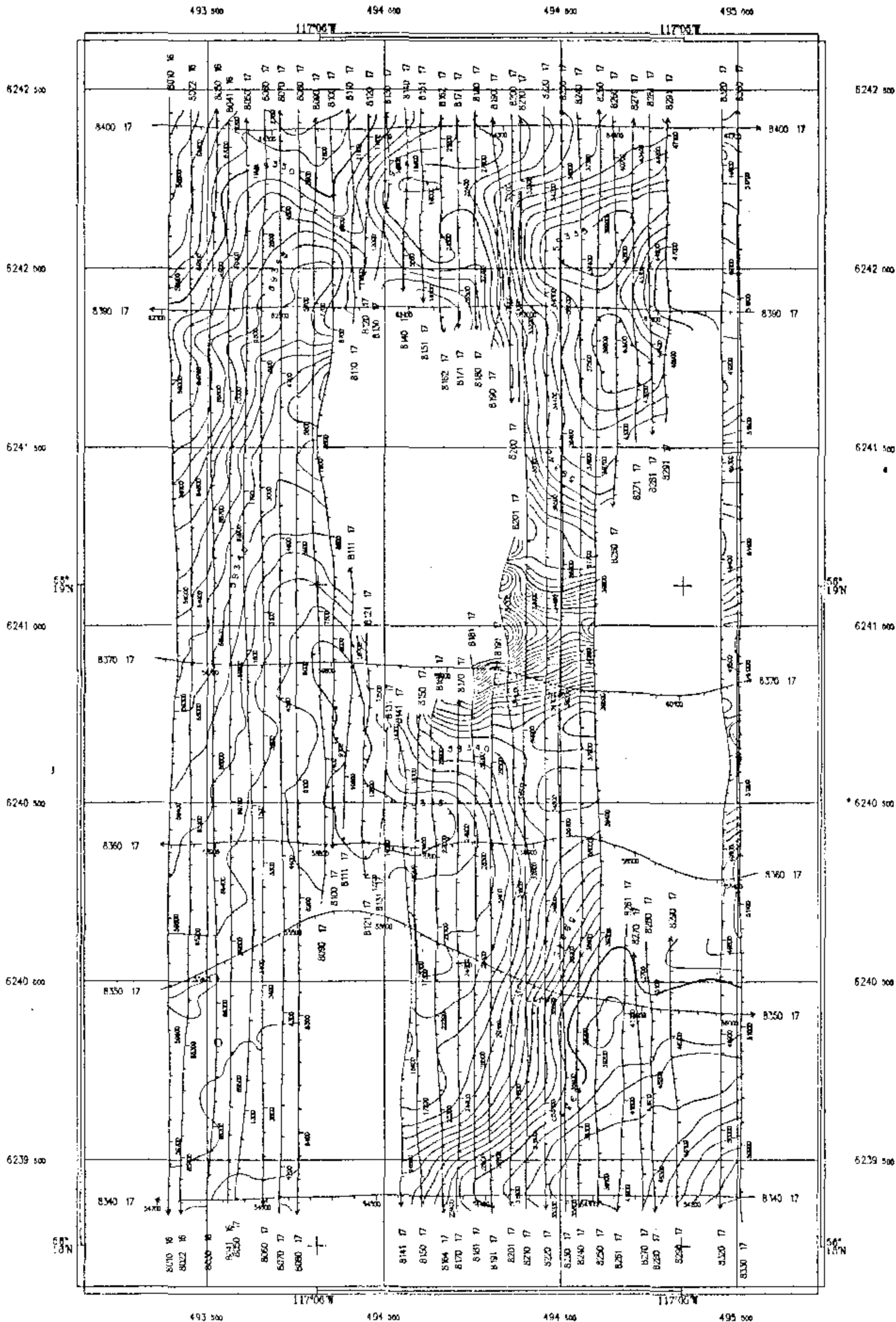
RIDGEWAY PETROLEUM CORP.

Peace River, Alberta

Total Field Magnetics
 Target 07

MAP SCALE	1:10,000	PROJECT REF #	970220-4
DATE COMPILED	Mar.-Apr. 97	DATE RUN	Feb.-Mar. 97

High-Sense 47 Jefferson Ave.
 Toronto, Canada
 Geophysical Limited MBK 1Y3



SURVEY SPECIFICATIONS

Helicopter altitude: 40 m M.T.C.
Mag sensor air altitude: 20 m M.T.C.
Traverse line spacing and direction: 50 m NS
Control line spacing and direction: 500 m EW

EQUIPMENT

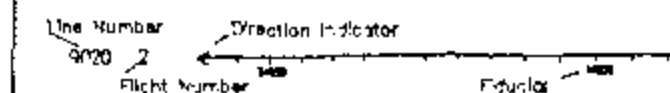
High-Sense MiniMag System with a GFDS II flight control system
Magnetometer: Schlöter M-8 cesium
Radar Altimeter: Terra 3500
GPS Navigation: Novatel 3851R

COMPILATION

FLIGHT PATH:

GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system

Spheroid: CLARKE 1866 a=6378206.4000 b=6356583.8000
Projection: Universal Transverse Mercator
Local Datum Shift: $\Delta x \Delta y \Delta z = 7, -162, -155$
Central Meridian: 117°W



MAGNETICS:

The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line leveling.

The grid interval is: 10 m
The contour intervals are: 1, 5, 25, 100 nT

RIDGEWAY PETROLEUM CORP.

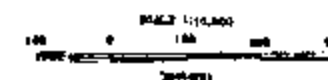
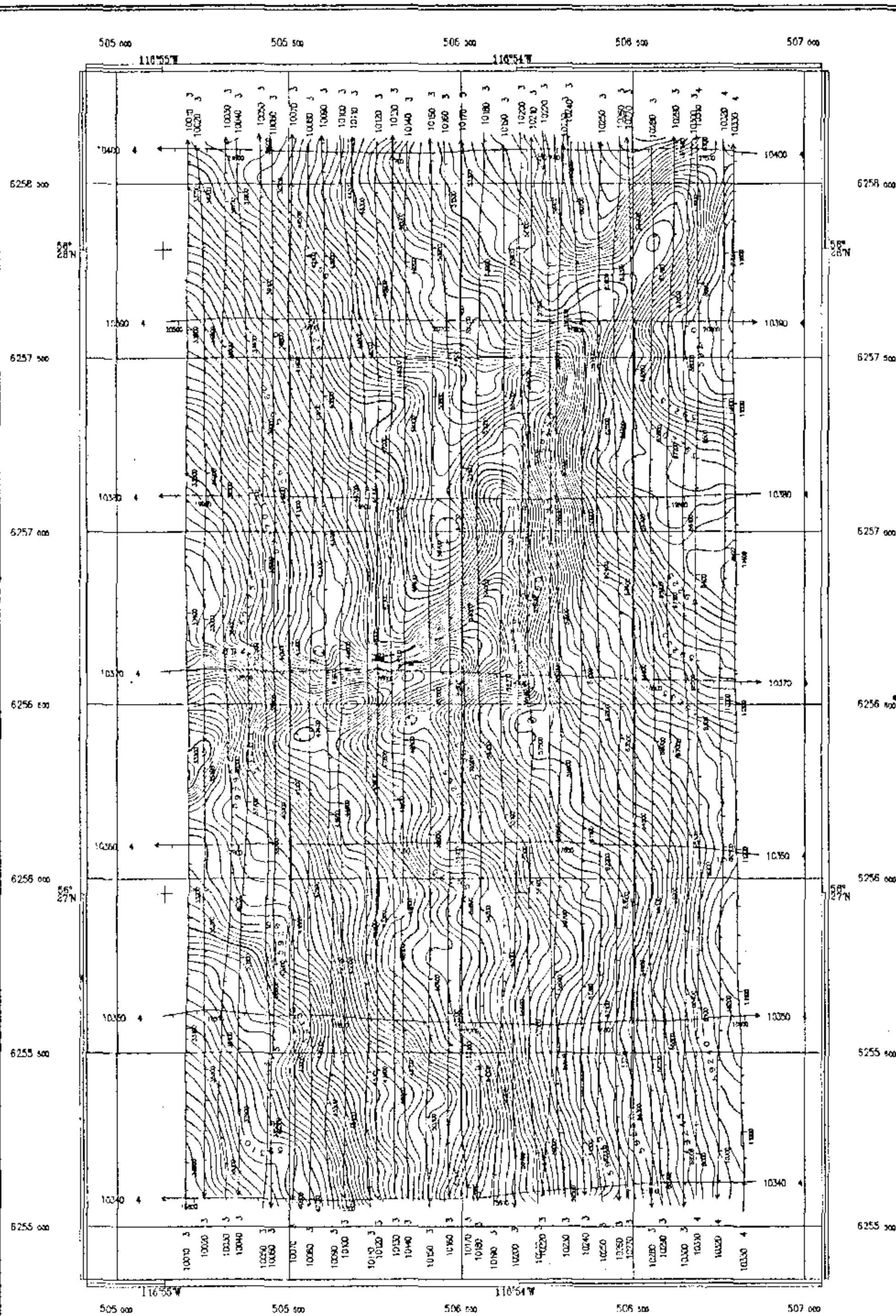
Peace River, Alberta

Total Field Magnetics
Target 08

MAP SCALE	1:10,000	PROJECT REF #	970220-4
DATE COMPILED	Mar.-Apr. 97	DATE FLOWN	Feb.-Mar. 97

High-Sense
Geophysical Limited

47 Jefferson Ave.
Toronto, Canada
M8K 1Y3



SURVEY SPECIFICATIONS

Helicopter altitude: 40 m M.T.C.
 Mag sensor bird altitude: 20 m M.T.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

EQUIPMENT

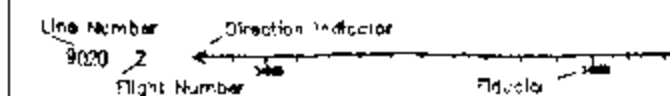
High-Sense Min-Mag System with a GFCS II flight control system
 Magnetometer: Scintrex H-8 cesium
 Radar Altimeter: Terra 3500
 GPS Navigation: Novatel 3951R

COMPILED

FLIGHT PATH:

GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system

Spheroid: CLARKE 1866 a=6378206.4000 b=6356583.0000
 Projection: Universal Transverse Mercator
 Local Datum Shift: Ax Ay Az = 7, 162, 165
 Central Meridian: 117W



MAGNETICS:

The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line leveling.

The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

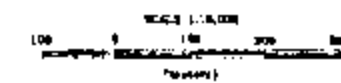
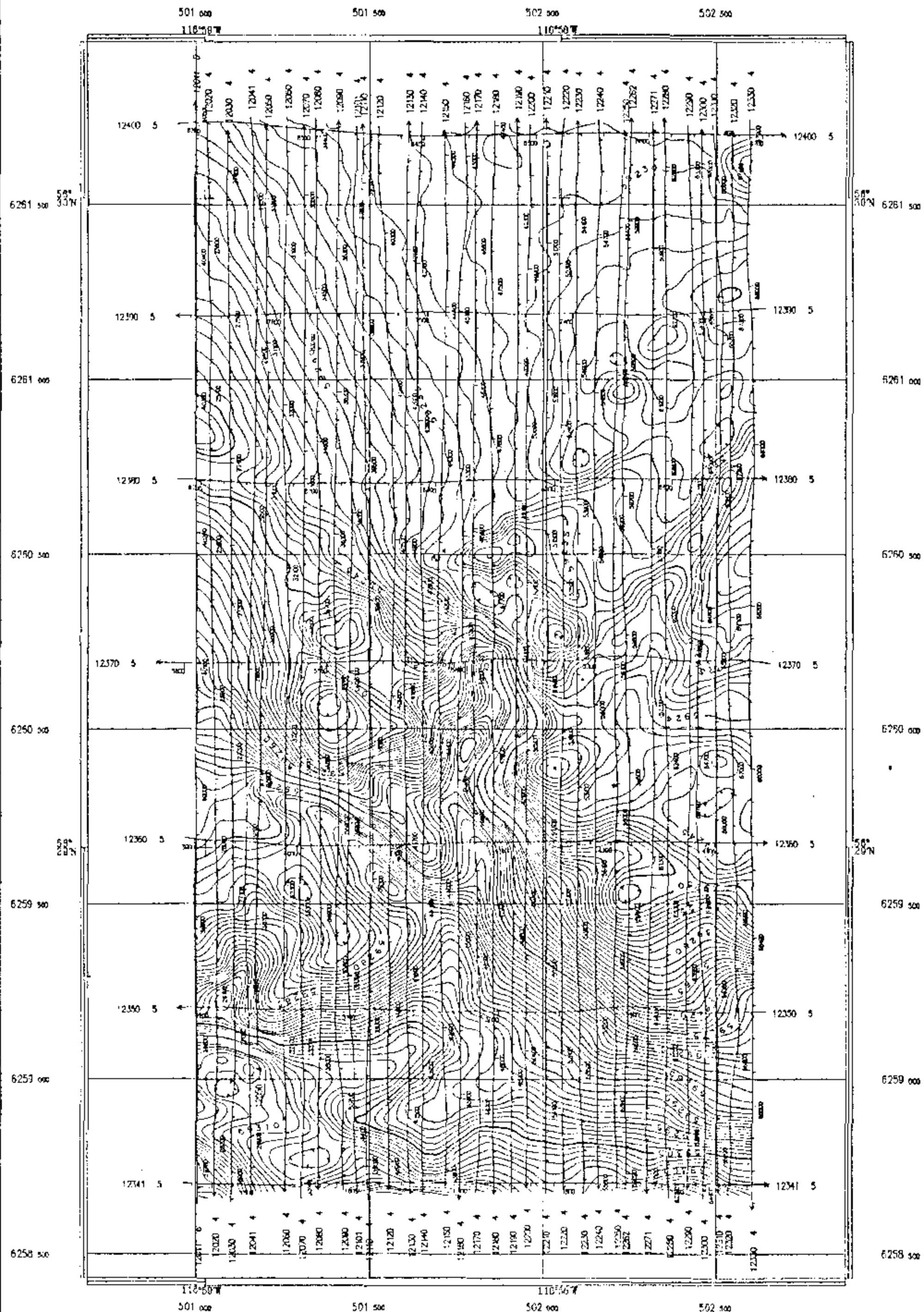
RIDGEWAY PETROLEUM CORP.

Peace River, Alberta

Total Field Magnetics
 Target 10

MAP SCALE	1:10,000	PROJECT REF #	970229-4
DATE COMPILED	Mar.-Apr. 97	DATE PLOTTED	Feb.-Mar. 97

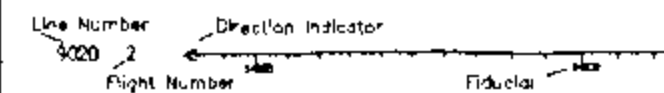
High-Sense 47 Jefferson Ave.
 Toronto, Canada
 M6K 1Y3



SURVEY SPECIFICATIONS
 Helicopter altitude: 40 m M.T.C.
 Mag sensor bird altitude: 20 m M.T.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

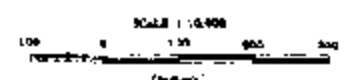
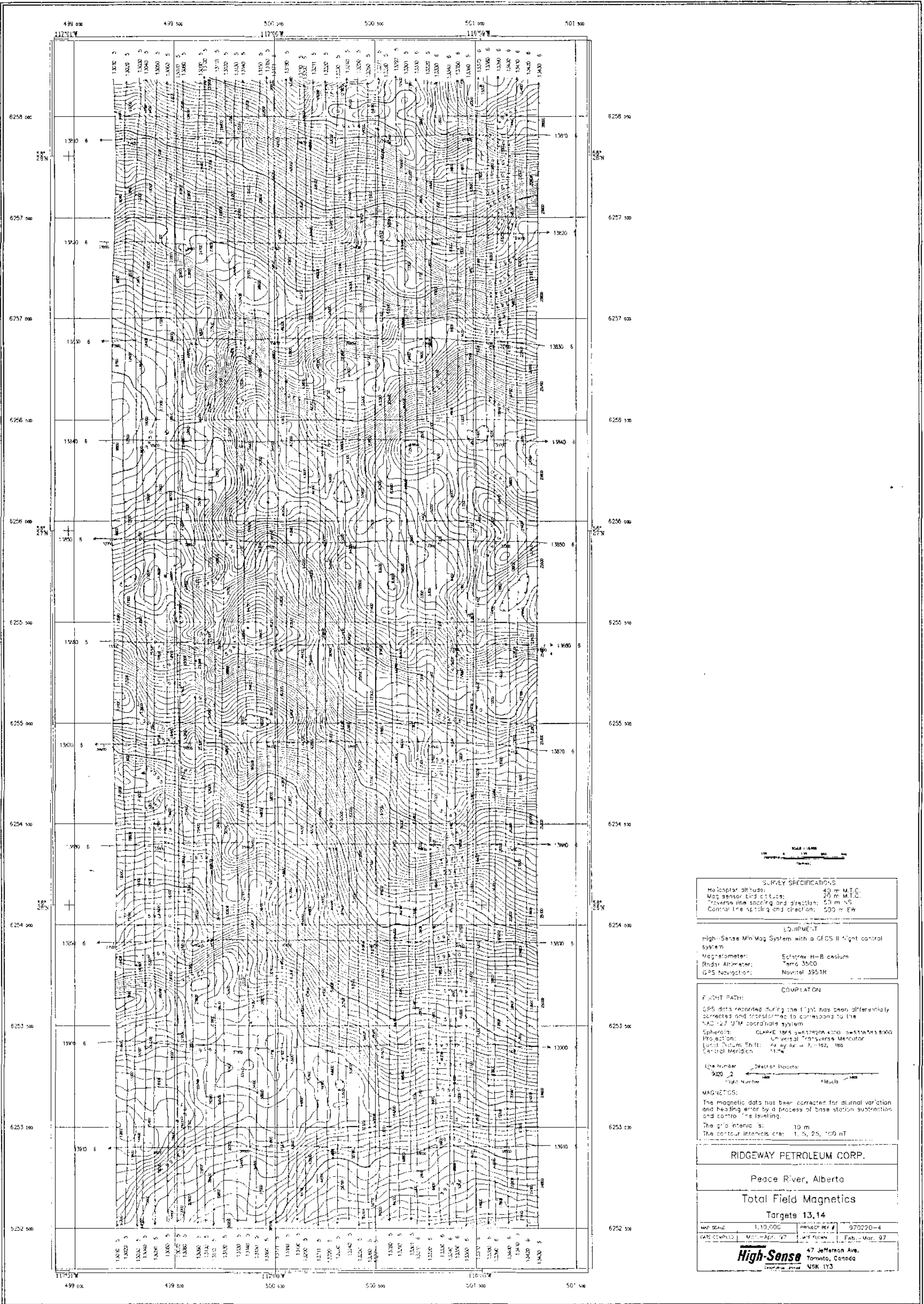
EQUIPMENT
 High-Sense MiniMag System with a GFC5 II flight control system
 Magnetometer: Saintrex H-B cesium
 Radar Altimeter: Terra 350D
 GPS Navigation: Novatel 3951R

COMPILATION
FLIGHT PATH:
 GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system.
 Spheroid: CLARKE 1858 $a=6379206.4000$ $b=6356583.8000$
 Projection: Universal Transverse Mercator
 Local Datum Shift: $Ax Ay Az = 7, -62, -136$
 Central Meridian: 117°W



MAGNETICS:
 The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line leveling.
 The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

RIDGEWAY PETROLEUM CORP.			
Peace River, Alberta			
Total Field Magnetics			
Target 12			
MAP SCALE	1:10,000	PROJECT REF #	970220-4
DATE COMPILED	Mar.-Apr. 97	DATE FLOWN	Feb.-Mar. 97
High-Sense		47 Jefferson Ave. Toronto, Canada M6K 1Y3	



SURVEY SPECIFICATIONS
 Helicopter altitude: 40 m M.T.C.
 Mag sensor bird offset: 20 m M.T.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

EQUIPMENT
 High-Sense MinMag System with a GFCS II flight control system
 Magnetometer: Schlögl H-B casing
 Radar Altimeter: Tamo 3500
 GPS Navigation: Novatel 3951R

COMPLETION
FLIGHT PATH:
 GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-83 UTM coordinate system.
 Spheroid: CLARKE 1866 s=6378206.4000 b=6356583.8000
 Projection: Universal Transverse Mercator
 Local Datum Shift: Az. by Az. = 2.192, 188
 Central Meridian: 111W

Line Number: 3020_2
 Flight Number: 100
 Direction: West
 File(s): 1000

MAGNETICS:
 The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line leveling.
 The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

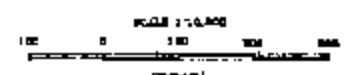
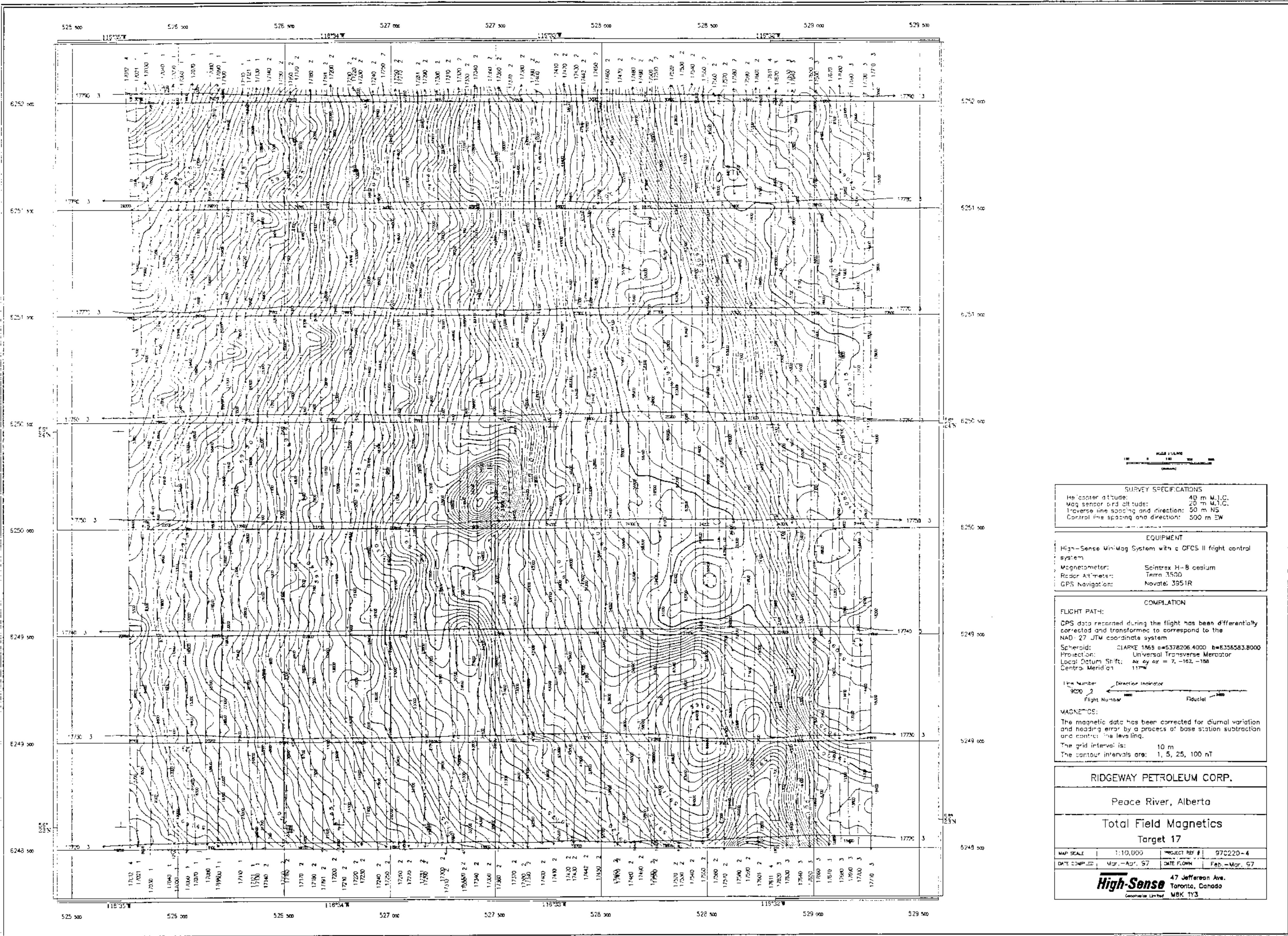
RIDGWAY PETROLEUM CORP.

Peace River, Alberta

Total Field Magnetics
 Targets 13,14

MAP SCALE: 1:10,000	PROJECT REF # 970220-4
DATE COMPILED: Mar.-Apr. 97	DATE PLOTTED: Feb.-Mar. 97

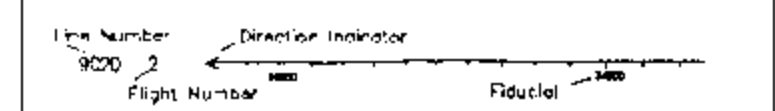
High-Sense 47 Jefferson Ave.
 Toronto, Canada M8K 1Y3



SURVEY SPECIFICATIONS
 Helicopter altitude: 40 m M.I.C.
 Mag sensor ord altitude: 20 m M.I.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

EQUIPMENT
 High-Sense MiniMag System with a GFCS II flight control system
 Magnetometer: Scintrex H-B cesium
 Radar Altimeter: Terra 3500
 GPS Navigation: Novatec 395-IR

COMPIATION
FLIGHT PATH:
 GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system.
 Spheroid: CLARKE 1868 a=6378206.4000 b=6356583.8000
 Projection: Universal Transverse Mercator
 Local Datum Shift: Ax & y of 7, -162, -198
 Central Meridian: 117°W



MAGNETICS:
 The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line leveling.
 The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

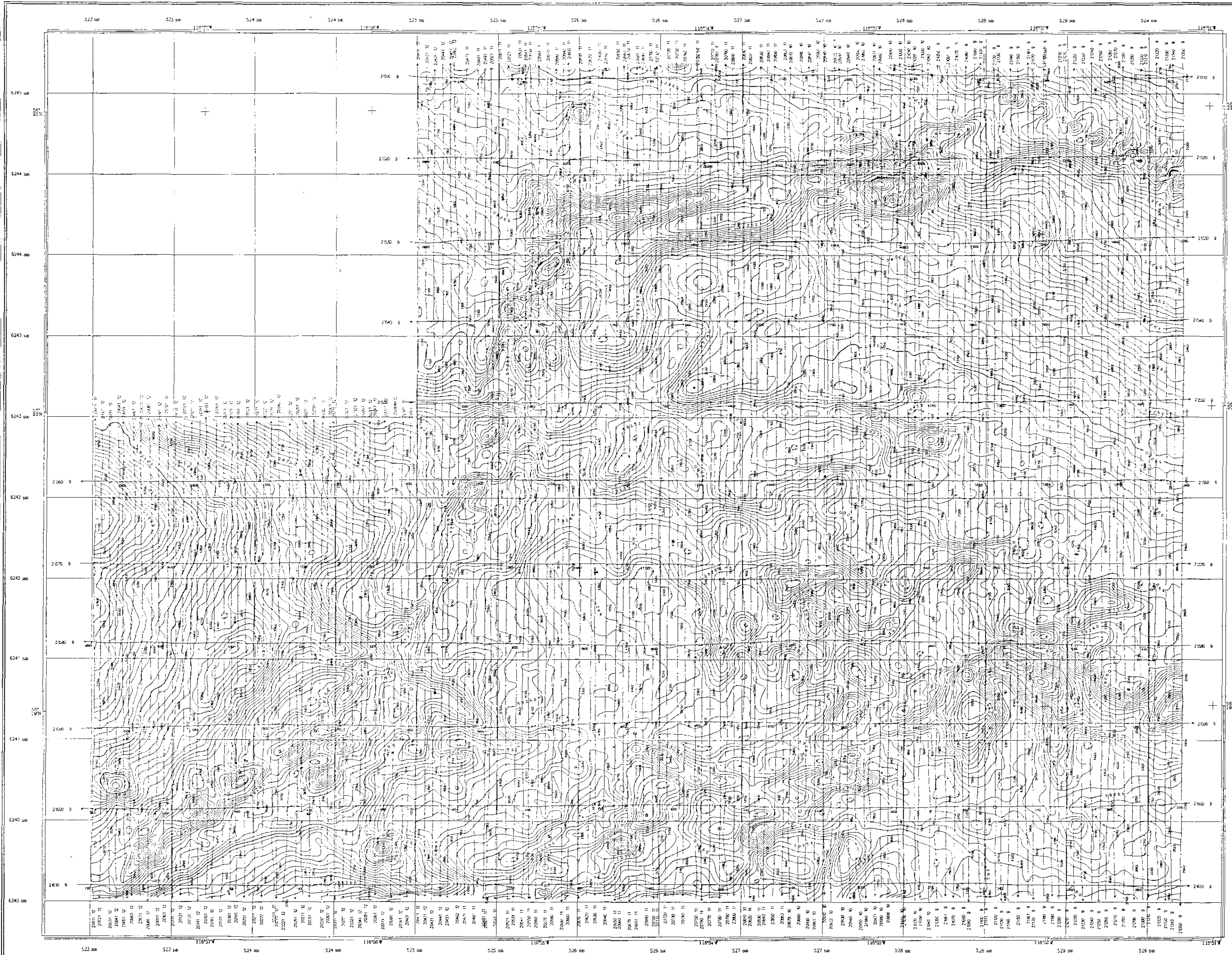
RIDGEWAY PETROLEUM CORP.

Peace River, Alberta

Total Field Magnetics
 Target 17

MAP SCALE	1:10,000	PROJECT REF #	97C220-4
DATE COMPILED	Mar.-Apr. 97	DATE FLOWN	Feb.-Mar. 97

High-Sense 47 Jefferson Ave.
 Toronto, Canada
 MBK 1Y3



SURVEY SPECIFICATIONS

Helicopter altitude: 40 m M.T.C.
 Mag sensor bird altitude: 20 m M.T.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

EQUIPMENT

High-Sense MiniMag System with a CFCS II flight control system
 Magnetometer: Scripps H-B Cesium
 Radar Altimeter: Terra 3500
 GPS Receiver: Novatel 3851R

COMPILATION

FLIGHT PATH:
 GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-83 UTM coordinate system.
 Sonar ID: CLARK 186 6-63/8256-4900 5-6356183-8000
 Projection: Universal Transverse Mercator
 Local Datum Shift: 44.44 m - 3.182.188
 Central Meridian: 117°

Line Number: _____
 Flight Number: _____
 Direction Indicator: _____
 Flashed: _____

MAGNETICS:
 The magnetic data has been corrected for diurnal variation and heading error by a process of 6550 station subtraction and control line leveling.
 The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

RIDGEWAY PETROLEUM CORP.

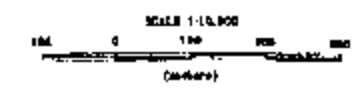
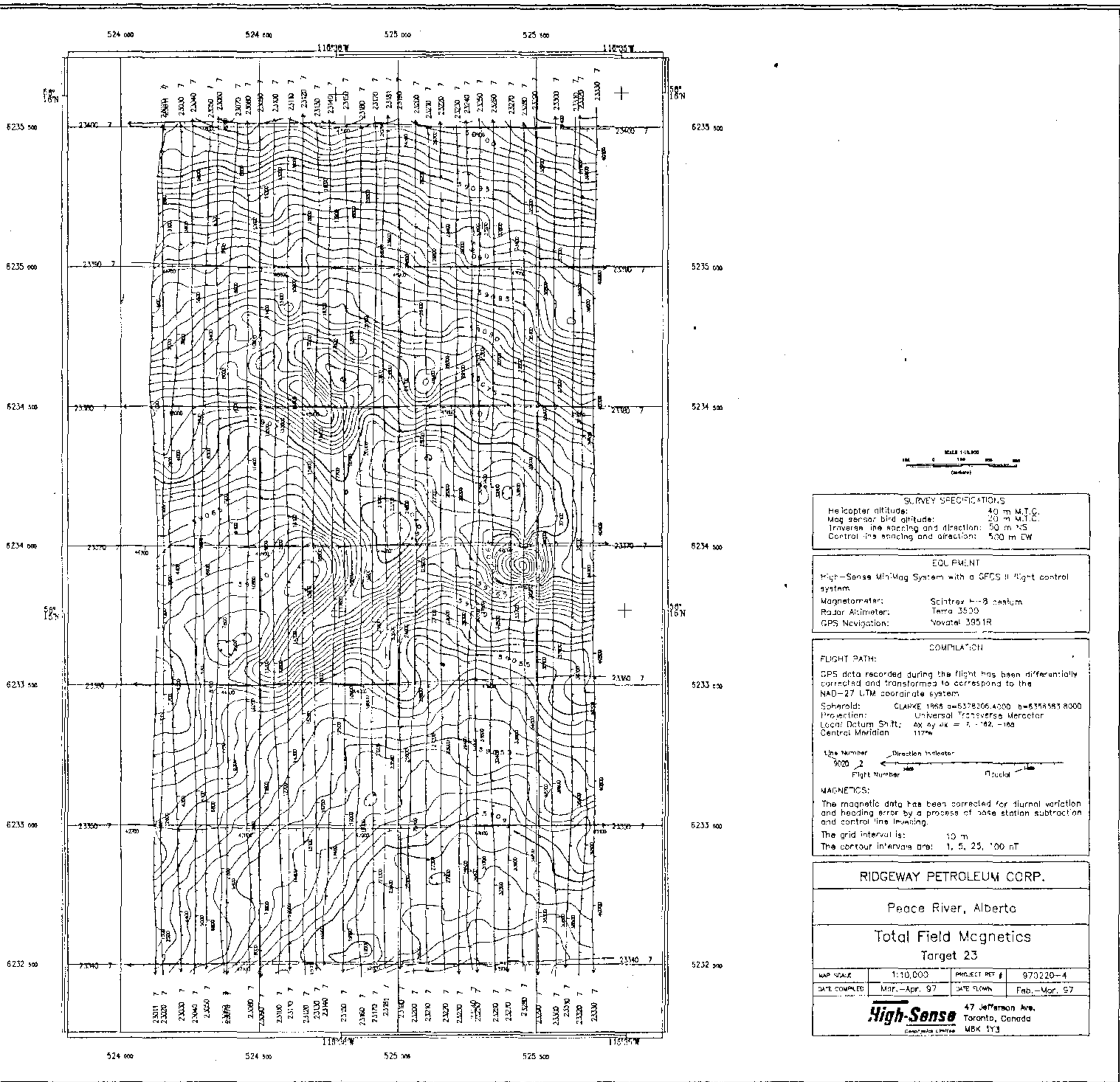
Peace River, Alberta

Total Field Magnetics

Targets 18-22

MAP SCALE: 1:10,000 PROJECT REF #: 970220-4
 DATE COMPILED: Mar.-Apr. 97 DATE FLOWN: Feb.-Mar. 97

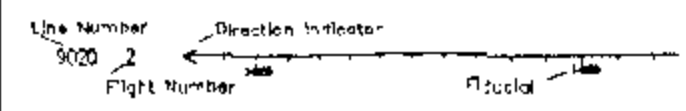
High-Sense 47 Jefferson Ave.
 Toronto, Canada
 M8X 1Y3



SURVEY SPECIFICATIONS
 Helicopter altitude: 40 m M.T.C.
 Mag sensor bird altitude: 20 m M.T.C.
 Inverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

EQUIPMENT
 High-Sense MiniMag System with a GFCOS II flight control system
 Magnetometer: Schitrax H-8 custom
 Radar Altimeter: Terra 3500
 GPS Navigation: Novatel 3851R

COMPILATION
FLIGHT PATH:
 GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system
 Spheroid: CLARKE 1866 a=6378206.4000 b=6356583.8000
 Projection: Universal Transverse Mercator
 Local Datum Shift: Ax ay az = 7.162, -168
 Central Meridian: 117°W



MAGNETICS:
 The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line leveling.
 The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

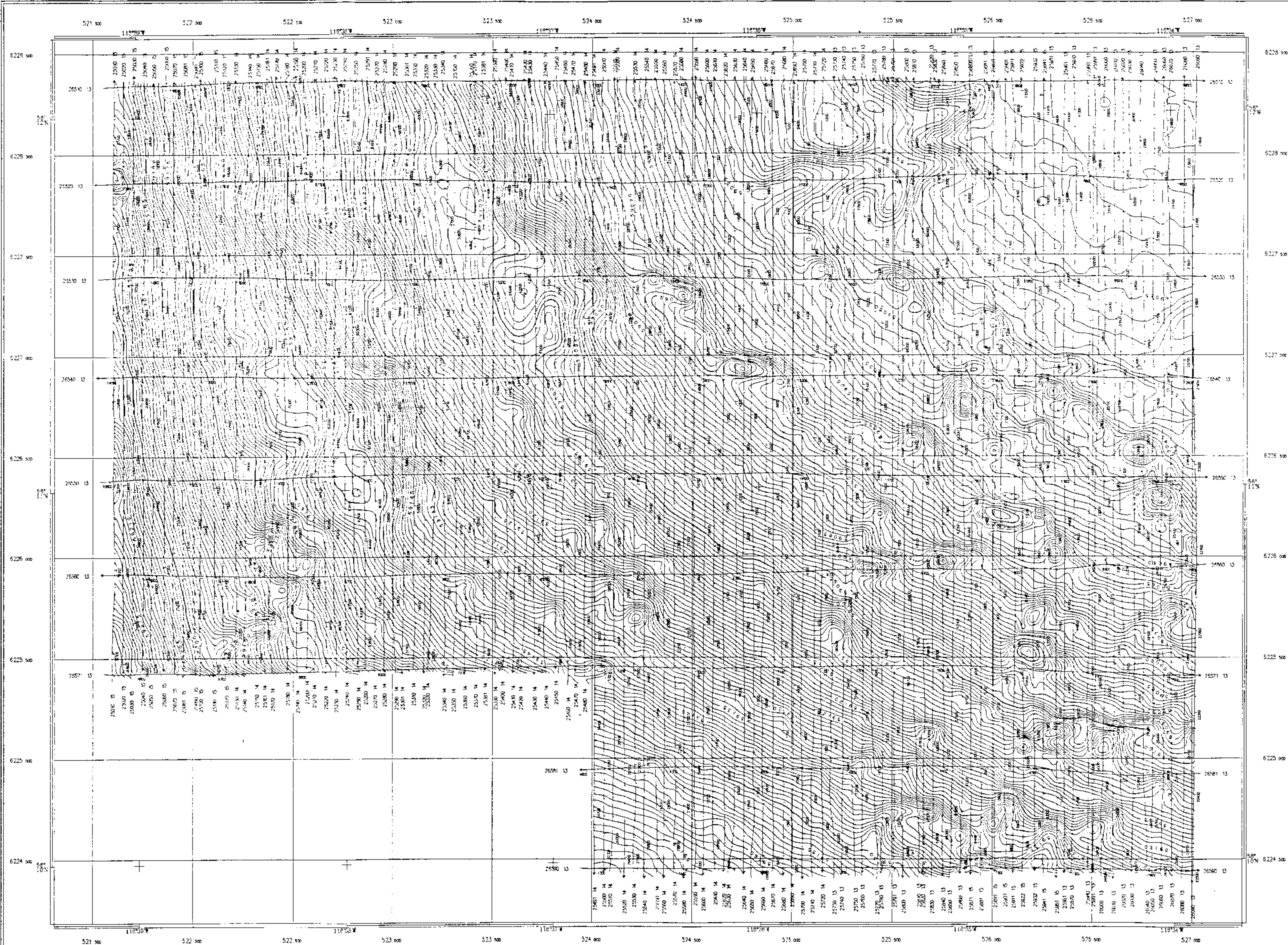
RIDGEWAY PETROLEUM CORP.

Peace River, Alberta

Total Field Magnetics
Target 23

MAP SCALE	1:10,000	PROJECT REF #	970220-4
DATE COMPILED	Mar.-Apr. 97	DATE FLOWN	Feb.-Mar. 97

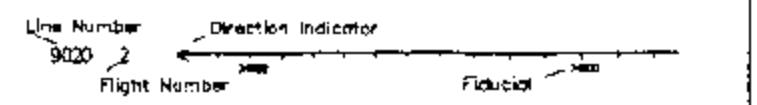
High-Sense 47 Jefferson Ave.
Toronto, Canada
MBK 513



SURVEY SPECIFICATIONS
 Helicopter altitude: 40 m M.T.C.
 Mag sensor bird altitude: 25 m M.T.C.
 Traverse line spacing and direction: 50 m NS
 Control line spacing and direction: 500 m EW

EQUIPMENT
 High-Sense MiniMag System with a GFC5 II flight control system
 Magnetometer: Scintrex H-8 cesium
 Radar Altimeter: Terra 3500
 GPS Navigation: Novatel 395TR

COMPLETION
FLIGHT PATH:
 GPS data recorded during the flight has been differentially corrected and transformed to correspond to the NAD-27 UTM coordinate system
 Spheroid: CLARKE 1866 a=6378206 4000 b=6356583.8000
 Projection: Universal Transverse Mercator
 Local Datum Shift: ax ay az = 7, -182, -148
 Central Meridian: 117°W



MAGNETICS:
 The magnetic data has been corrected for diurnal variation and heading error by a process of base station subtraction and control line leveling.
 The grid interval is: 10 m
 The contour intervals are: 1, 5, 25, 100 nT

RIDGEWAY PETROLEUM CORP.
 Peace River, Alberta
 Total Field Magnetics
 Targets 24-26

MAP SCALE: 1:10,000 PROJECT REF # B70223-4
 DATE COMPLETED: Mar.-Apr. 97 DATE PLOTTED: Feb.-Mar. 97
High-Sense 47 Jefferson Ave. Toronto, Canada
 GEOSURVEY LIMITED MBK 113