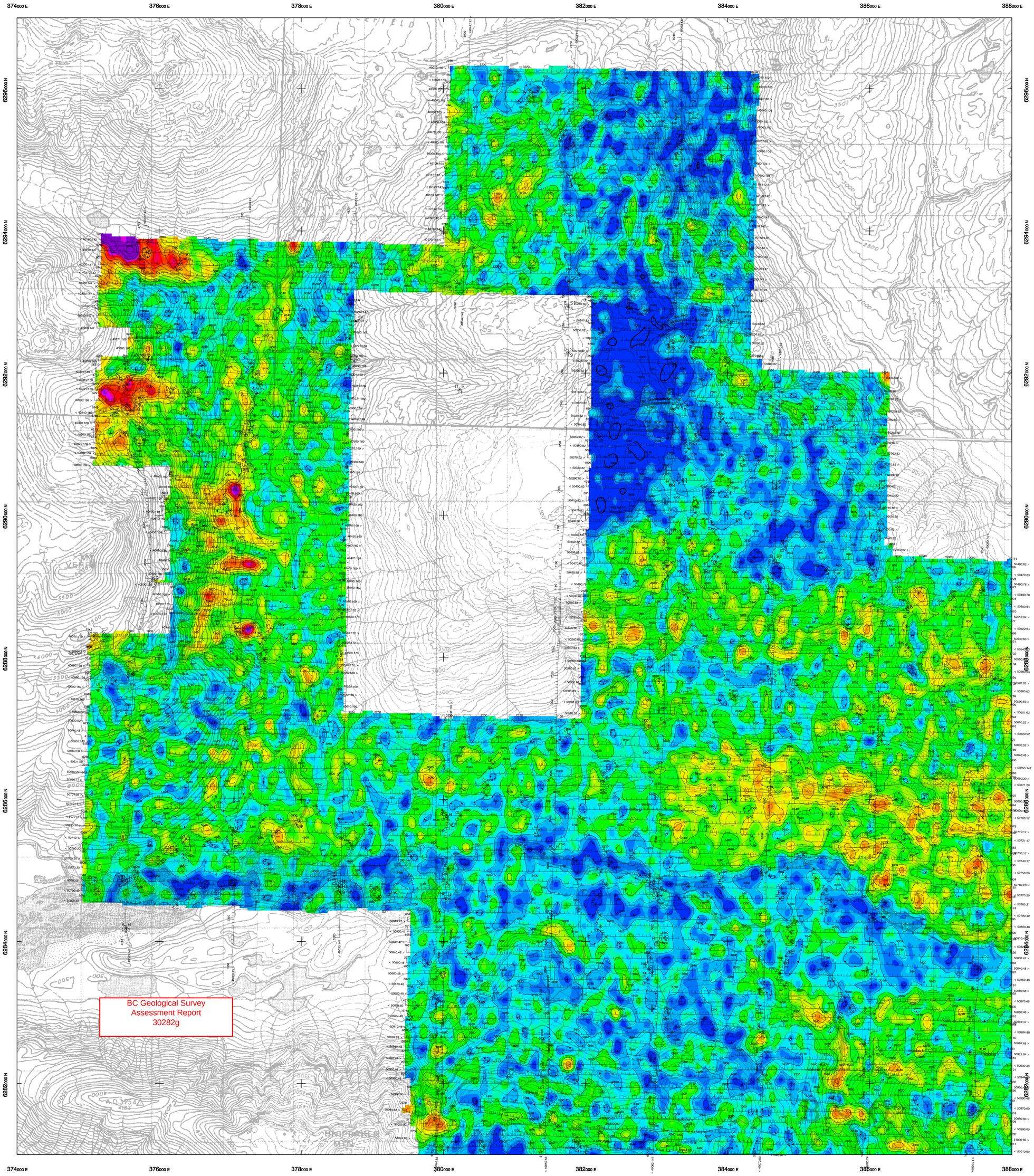


BC Geological Survey
Assessment Report
30282g

TECHNICAL SUMMARY

Navigation . . . . . Differentially-corrected GPS
Data reduction grid interval . . . . 38 metres
Terrain clearance . . . . . Helicopter, Spectrometer 57 m
Electromagnetic sensor 30 m
Magnetometer 30 m
Data sampling interval . . . . . 0.1 second
Magnetometer / sensitivity . . . . . Cesium / 0.01 nT
Electromagnetic system . . . . . DIGHEM^V
Spectrometer GR820

Frequency	Sensitivity	Coil Orientation
1000 Hz	.06 ppm	Vertical coaxial
5500 Hz	.12 ppm	Vertical coaxial
900 Hz	.12 ppm	Horizontal coplanar
7200 Hz	.24 ppm	Horizontal coplanar
56000 Hz	.60 ppm	Horizontal coplanar

ELECTROMAGNETIC ANOMALIES

Grade	Anomaly	Conductance
7	●	>100 siemens
6	◕	50–100 siemens
5	◒	20–50 siemens
4	◔	10–20 siemens
3	⊕	5–10 siemens
2	○	1–5 siemens
1	◌	< 1 siemens
–	✳	Questionable anomaly

Anomaly identifier — Interpretive symbol — Inphase and Quadrature of coaxial coil is greater than
Depth is greater than
15 m
30 m
45 m
60 m
5 ppm
10 ppm
15 ppm
20 ppm

Interpretive symbol	Conductor ("model")
B	Bedrock conductor
D	Narrow bedrock conductor ("thin dike")
S	Conductive cover ("horizontal thin sheet")
H	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E	Edge of broad conductor ("edge of half space")
L	Culture, e.g. power line, metal building or fence

U (cps)
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2

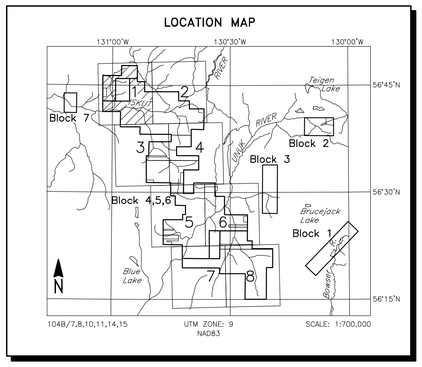
FLIGHT LINES WITH EM ANOMALIES

Flight number
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles
Dip direction
EM anomaly (see EM legend)
Conductor axis (on EM maps only)
Arcs indicate the conductor has a thickness > 10m
Magnetic correlation in nT (gammas)

CONTOUR INTERVALS

. . . . . 100 cps
. . . . . 20 cps
. . . . . 4 cps
. . . . . 2 cps
. . . . . low

LOCATION MAP



HATHOR EXPLORATION LIMITED
ESKAY AREA BLOCKS 4–6, B.C.

RADIOMETRIC URANIUM COUNTS

FUGRO DIGHEM^V/RAD SURVEY	NTS: 104B/7,8,10,11,14,15	GEOPHYSICIST:
DATE: DECEMBER, 2007	JOB: 06041	SHEET: 1

Fugro Airborne Surveys

0 1 2 Km
0 1 Mi
Scale 1:20 000

FUGRO AIRBORNE SURVEYS

406000 E 408000 E 410000 E 412000 E 414000 E 416000 E 418000 E 420000 E

6248000 N 6246000 N 6244000 N 6242000 N 6240000 N 6238000 N 6236000 N 6234000 N

ICEFIELD

MOUNT FRANK MACKIE

BALL CREEK

ROBERT

TECHNICAL SUMMARY

Navigation	Differentially–corrected GPS
Data reduction grid interval	38 metres
Terrain clearance	Helicopter, Spectrometer 57 m Electromagnetic sensor 30 m Magnetometer 30 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Cesium / 0.01 nT
Electromagnetic system	DIGHEM*
Spectrometer	GR820

Frequency	Sensitivity	Coil Orientation
1000 Hz	.06 ppm	Vertical coaxial
5500 Hz	.12 ppm	Vertical coaxial
900 Hz	.12 ppm	Horizontal coplanar
7200 Hz	.24 ppm	Horizontal coplanar
56000 Hz	.60 ppm	Horizontal coplanar

ELECTROMAGNETIC ANOMALIES

Grade	Anomaly	Conductance
7	●	>100 siemens
6	◐	50–100 siemens
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4	◒	10–20 siemens
3	⊕	5–10 siemens
2	○	1–5 siemens
1	◌	< 1 siemens
–	✳	Questionable anomaly

Anomaly Identifier — Interpretive symbol — Inphase and Quadrature of coaxial coil is greater than

Depth is greater than
- 15 m
: 30 m
⋮ 45 m
⋮ 60 m

5 ppm
.. 10 ppm
... 15 ppm
.... 20 ppm

Interpretive symbol	Conductor ("model")
B	Bedrock conductor
D	Narrow bedrock conductor ("thin dike")
S	Conductive cover ("horizontal thin sheet")
H	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E	Edge of broad conductor ("edge of half space")
L	Culture, e.g. power line, metal building or fence

Th (cps)

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

CONTOUR INTERVALS

. . . . . 100 cps

. . . . . 20 cps

. . . . . 4 cps

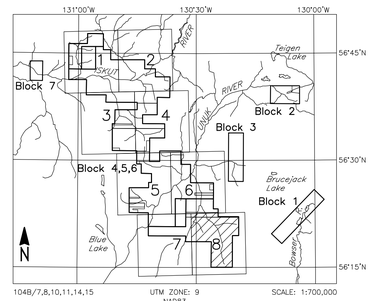
. . . . . 2 cps

. . . . . low

FLIGHT LINES WITH EM ANOMALIES

Flight number
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles
Dip direction
EM anomaly (see EM legend)
Conductor axis (on EM maps only)
Arcs indicate the conductor has a thickness > 10m
Magnetic correlation in nT (gammas)

LOCATION MAP



HATHOR EXPLORATION LIMITED
ESKAY AREA BLOCKS 4–6, B.C.

RADIOMETRIC THORIUM COUNTS

FUGRO DIGHEM*/RAD SURVEY	NTS: 104B/7,8,10,11,14,15	GEOPHYSICIST:
DATE: DECEMBER, 2007	JOB: 06041	SHEET: 8

Fugro Airborne Surveys

0 1 2 Km
0 1 Mi
Scale 1:20 000

FUGRO AIRBORNE SURVEYS

392000 E 394000 E 396000 E 398000 E 400000 E 402000 E 404000 E 406000 E

6248000 N 6246000 N 6244000 N 6242000 N 6240000 N 6238000 N 6236000 N 6234000 N

Border Lake

BF 37 1983

BF 36 1983

BF 34 1983

A-1S?

FIELD

TECHNICAL SUMMARY

Navigation	Differentially–corrected GPS
Data reduction grid interval	38 metres
Terrain clearance	Helicopter, Spectrometer 57 m Electromagnetic sensor 30 m Magnetometer 30 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Cesium / 0.01 nT
Electromagnetic system	DIGHEM*
Spectrometer	GR820

Frequency	Sensitivity	Coil Orientation
1000 Hz	.06 ppm	Vertical coaxial
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7200 Hz	.24 ppm	Horizontal coplanar
56000 Hz	.60 ppm	Horizontal coplanar

ELECTROMAGNETIC ANOMALIES

Grade	Anomaly	Conductance
7	●	>100 siemens
6	◐	50–100 siemens
5	◑	20–50 siemens
4	◒	10–20 siemens
3	⊕	5–10 siemens
2	○	1–5 siemens
1	◌	< 1 siemens
–	✳	Questionable anomaly

Anomaly Identifier — Interpretive symbol — Inphase and Quadrature of coaxial coil is greater than

Depth is greater than
- 15 m
: 30 m
⋮ 45 m
⋮ 60 m

- 5 ppm
.. 10 ppm
... 15 ppm
.... 20 ppm

Interpretive symbol	Conductor ("model")
B	Bedrock conductor
D	Narrow bedrock conductor ("thin dike")
S	Conductive cover ("horizontal thin sheet")
H	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E	Edge of broad conductor ("edge of half space")
L	Culture, e.g. power line, metal building or fence

Th (cps)

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

FLIGHT LINES WITH EM ANOMALIES

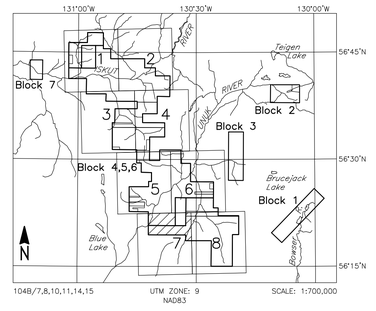
13010 — 13020 < 2 — 125 — F B — 100

- Flight number
- Flight direction
- Flight line number
- 11020 — Reflight Number / Line Number / Area Number
- Fiducials identified on profiles
- Dip direction
- EM anomaly (see EM legend)
- Conductor axis (on EM maps only)
- Arcs indicate the conductor has a thickness > 10m
- Magnetic correlation in nT (gammas)

CONTOUR INTERVALS

- 100 cps
- 20 cps
- 4 cps
- 2 cps
- low

LOCATION MAP



HATHOR EXPLORATION LIMITED
ESKAY AREA BLOCKS 4–6, B.C.

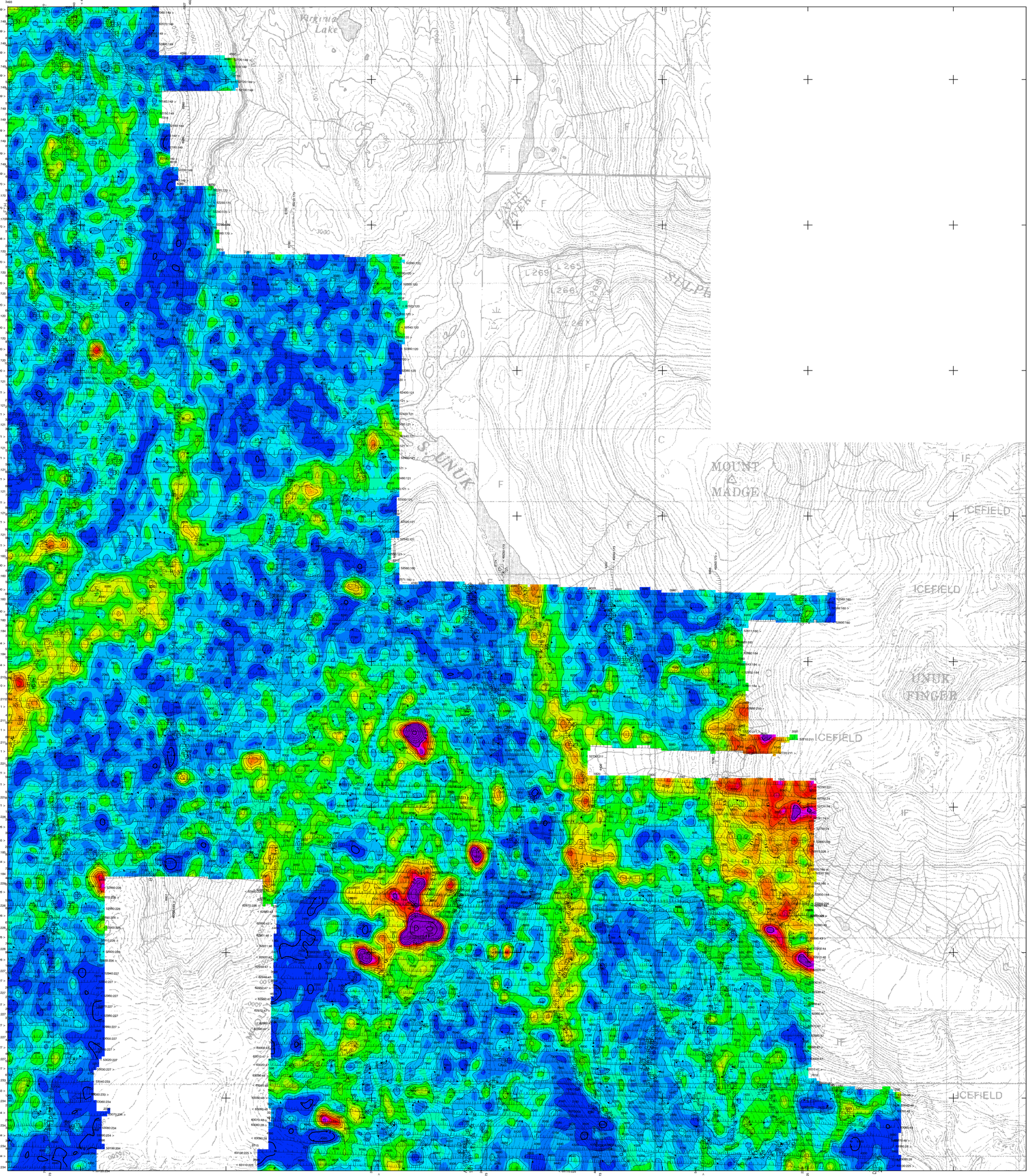
RADIOMETRIC THORIUM COUNTS

FUGRO DIGHEM*/RAD SURVEY	NTS: 104B/7,8,10,11,14,15	GEOPHYSICIST:
DATE: DECEMBER, 2007	JOB: 06041	SHEET: 7

Fugro Airborne Surveys

0 1 2 Km
0 1 Mi
Scale 1:20 000

FUGRO AIRBORNE SURVEYS



TECHNICAL SUMMARY

Navigation . . . . . Differentially-corrected GPS
Data reduction grid interval . . . . 38 metres
Terrain clearance . . . . . Helicopter, Spectrometer 57 m
Electromagnetic sensor 30 m
Magnetometer 30 m
Data sampling interval . . . . . 0.1 second
Magnetometer / sensitivity . . . . . Cesium / 0.01 nT
Electromagnetic system . . . . . DIGHEM^{V}
Spectrometer GR820

Frequency	Sensitivity	Coil Orientation
1000 Hz	.06 ppm	Vertical coaxial
5500 Hz	.12 ppm	Vertical coaxial
900 Hz	.12 ppm	Horizontal coplanar
7200 Hz	.24 ppm	Horizontal coplanar
56000 Hz	.60 ppm	Horizontal coplanar

ELECTROMAGNETIC ANOMALIES

Grade	Anomaly	Conductance
7	●	>100 siemens
6	◕	50–100 siemens
5	◒	20–50 siemens
4	◔	10–20 siemens
3	⊕	5–10 siemens
2	○	1–5 siemens
1	◌	< 1 siemens
–	✳	Questionable anomaly

Anomaly identifier — Interpretive symbol — Depth is greater than: · 15 m, : 30 m, ⁞ 45 m, ⁞ 60 m — Inphase and Quadrature of coaxial coil is greater than: . 5 ppm, .. 10 ppm, ... 15 ppm, ... 20 ppm

Interpretive symbol	Conductor ("model")
B	Bedrock conductor
D	Narrow bedrock conductor ("thin dike")
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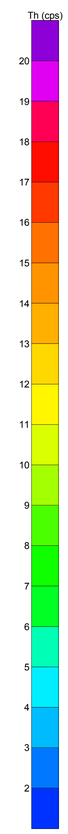
H	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E	Edge of broad conductor ("edge of half space")
L	Culture, e.g. power line, metal building or fence



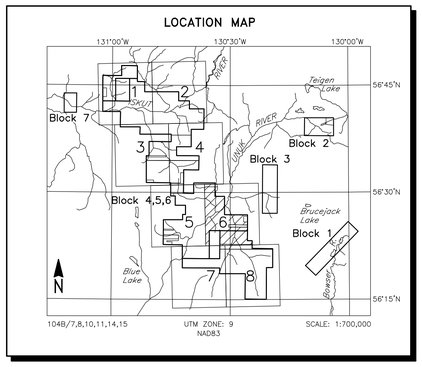
FLIGHT LINES WITH EM ANOMALIES

Flight number
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles
Dip direction
EM anomaly (see EM legend)
Conductor axis (on EM maps only)
Arcs indicate the conductor has a thickness > 10m
Magnetic correlation in nT (gammas)

CONTOUR INTERVALS

. . . . . 100 cps
. . . . . 20 cps
. . . . . 4 cps
. . . . . 2 cps
. . . . . low

LOCATION MAP



HATHOR EXPLORATION LIMITED
ESKAY AREA BLOCKS 4–6, B.C.

RADIOMETRIC THORIUM COUNTS

FUGRO DIGHEM^{V}/RAD SURVEY	NTS: 104B/7,8,10,11,14,15	GEOPHYSICIST:
DATE: DECEMBER, 2007	JOB: 06041	SHEET: 6

Fugro Airborne Surveys

0 1 2 Km
0 1 Mi
Scale 1:20 000

FUGRO AIRBORNE SURVEYS

388000 E | 390000 E | 392000 E | 394000 E | 396000 E | 398000 E | 400000 E

6264000 N | 6262000 N | 6260000 N | 6258000 N | 6256000 N | 6254000 N | 6252000 N | 6250000 N

ICEFIELD

BOUNDARY RAN

Glacier

TECHNICAL SUMMARY

Navigation	Differentially–corrected GPS
Data reduction grid interval	38 metres
Terrain clearance	Helicopter, Spectrometer 57 m Electromagnetic sensor 30 m Magnetometer 30 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Cesium / 0.01 nT
Electromagnetic system	DIGHEM^V
Spectrometer	GR820

Frequency	Sensitivity	Coil Orientation
1000 Hz	.06 ppm	Vertical coaxial
5500 Hz	.12 ppm	Vertical coaxial
900 Hz	.12 ppm	Horizontal coplanar
7200 Hz	.24 ppm	Horizontal coplanar
56000 Hz	.60 ppm	Horizontal coplanar

ELECTROMAGNETIC ANOMALIES

Grade	Anomaly	Conductance
7	●	>100 siemens
6	◐	50–100 siemens
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4	◒	10–20 siemens
3	⊕	5–10 siemens
2	○	1–5 siemens
1	◌	< 1 siemens
–	✳	Questionable anomaly

Anomaly identifier; Interpretive symbol; Depth is greater than: . 15 m, : 30 m, ⋮ 45 m, ⋮ 60 m; Inphase and Quadrature of coaxial coil is greater than: . 5 ppm, .. 10 ppm, ... 15 ppm, ... 20 ppm

Interpretive symbol	Conductor ("model")
B	Bedrock conductor
D	Narrow bedrock conductor ("thin dike")
S	Conductive cover ("horizontal thin sheet")
H	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E	Edge of broad conductor ("edge of half space")
L	Culture, e.g. power line, metal building or fence

Th (cps)

20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2

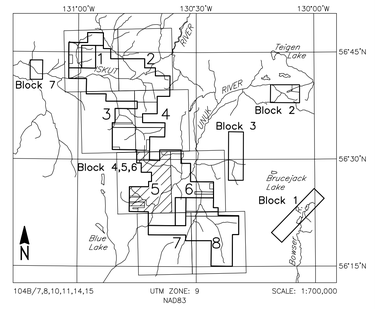
FLIGHT LINES WITH EM ANOMALIES

Flight number; Flight direction; Flight line number; 11020: Reflight Number, Line Number, Area Number; Fiducials identified on profiles; Dip direction; EM anomaly (see EM legend); Conductor axis (on EM maps only); Arcs indicate the conductor has a thickness > 10m; Magnetic correlation in nT (gammas)

CONTOUR INTERVALS

100 cps
20 cps
4 cps
2 cps
low

LOCATION MAP



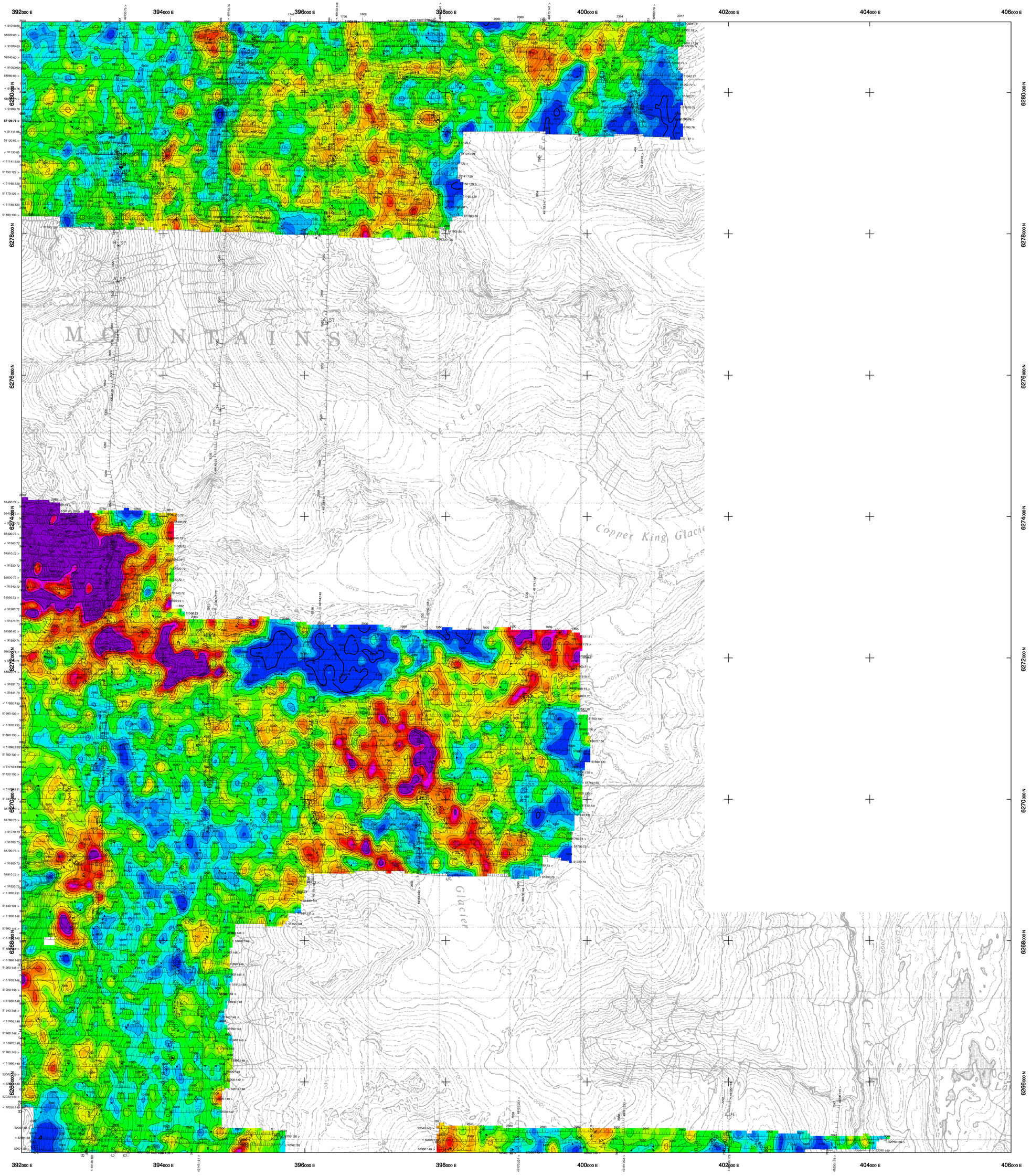
HATHOR EXPLORATION LIMITED
ESKAY AREA BLOCKS 4–6, B.C.

RADIOMETRIC THORIUM COUNTS

FUGRO DIGHEM^V/RAD SURVEY	NTS: 104B/7,8,10,11,14,15	GEOPHYSICIST:
DATE: DECEMBER, 2007	JOB: 06041	SHEET: 5
Fugro Airborne Surveys		

0 1 2 Km
0 1 Mi
Scale 1:20 000

FUGRO AIRBORNE SURVEYS



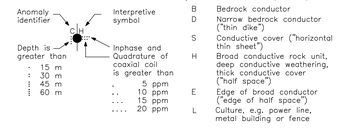
TECHNICAL SUMMARY

Navigation	Differentially–corrected GPS
Data reduction grid interval	38 metres
Terrain clearance	Helicopter, Spectrometer 57 m Electromagnetic sensor 30 m Magnetometer 30 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Cesium / 0.01 nT
Electromagnetic system	DIGHEM*
Spectrometer	GR820

Frequency	Sensitivity	Coil Orientation
1000 Hz	.06 ppm	Vertical coaxial
5500 Hz	.12 ppm	Vertical coaxial
900 Hz	.12 ppm	Horizontal coplanar
7200 Hz	.24 ppm	Horizontal coplanar
56000 Hz	.60 ppm	Horizontal coplanar

ELECTROMAGNETIC ANOMALIES

Grade	Anomaly	Conductance
7	●	>100 siemens
6	◕	50–100 siemens
5	◑	20–50 siemens
4	◔	10–20 siemens
3	⊕	5–10 siemens
2	○	1–5 siemens
1	◌	< 1 siemens
–	✳	Questionable anomaly



Interpretive symbol	Conductor ("model")
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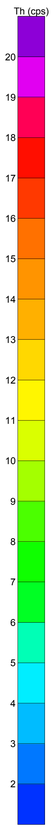
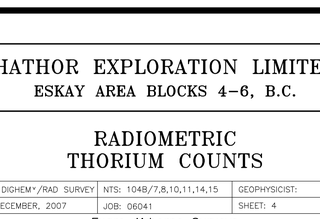


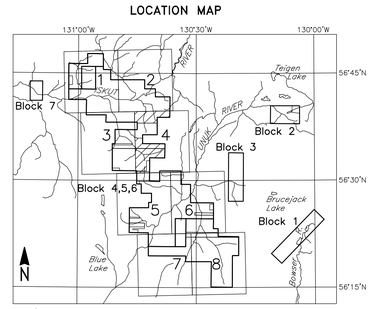
FLIGHT LINES WITH EM ANOMALIES



CONTOUR INTERVALS

———	100 cps
———	20 cps
———	4 cps
— — — —	2 cps
⬭	low

LOCATION MAP



HATHOR EXPLORATION LIMITED
ESKAY AREA BLOCKS 4–6, B.C.

RADIOMETRIC THORIUM COUNTS

FUGRO DIGHEM*/RAD SURVEY	NTS: 104B/7,8,10,11,14,15	GEOPHYSICIST:
DATE: DECEMBER, 2007	JOB: 06041	SHEET: 4

Fugro Airborne Surveys

0 1 2 Km
0 1 Mi
Scale 1:20 000

FUGRO AIRBORNE SURVEYS

TECHNICAL SUMMARY

Navigation	Differentially–corrected GPS
Data reduction grid interval	38 metres
Terrain clearance	Helicopter, Spectrometer 57 m Electromagnetic sensor 30 m Magnetometer 30 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Cesium / 0.01 nT
Electromagnetic system	DIGHEM*
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Frequency	Sensitivity	Coil Orientation
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ELECTROMAGNETIC ANOMALIES

Grade	Anomaly	Conductance
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–	✳	Questionable anomaly

Anomaly identifier; Interpretive symbol; Inphase and Quadrature of coaxial coil is greater than 5 ppm, 10 ppm, 15 ppm, 20 ppm; Depth is greater than 15 m, 30 m, 45 m, 60 m

Interpretive symbol	Conductor ("model")
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Th (cps)

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

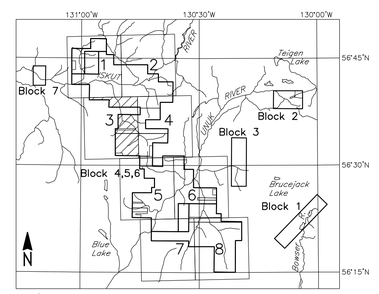
CONTOUR INTERVALS

- . . . . . 100 cps
- . . . . . 20 cps
- . . . . . 4 cps
- . . . . . 2 cps
- . . . . . low

FLIGHT LINES WITH EM ANOMALIES

Flight number; Flight direction; Flight line number; 11020: Reflight Number, Line Number, Area Number; Fiducials identified on profiles; Dip direction; EM anomaly (see EM legend); Conductor axis (on EM maps only); Arcs indicate the conductor has a thickness > 10m; Magnetic correlation in nT (gammas)

LOCATION MAP



104B/7,8,10,11,14,15 UTM ZONE: 9 NAD83 SCALE: 1:700,000

HATHOR EXPLORATION LIMITED

ESKAY AREA BLOCKS 4–6, B.C.

RADIOMETRIC THORIUM COUNTS

FUGRO DIGHEM*/RAD SURVEY	NTS: 104B/7,8,10,11,14,15	GEOPHYSICIST:
DATE: DECEMBER, 2007	JOB: 06041	SHEET: 3

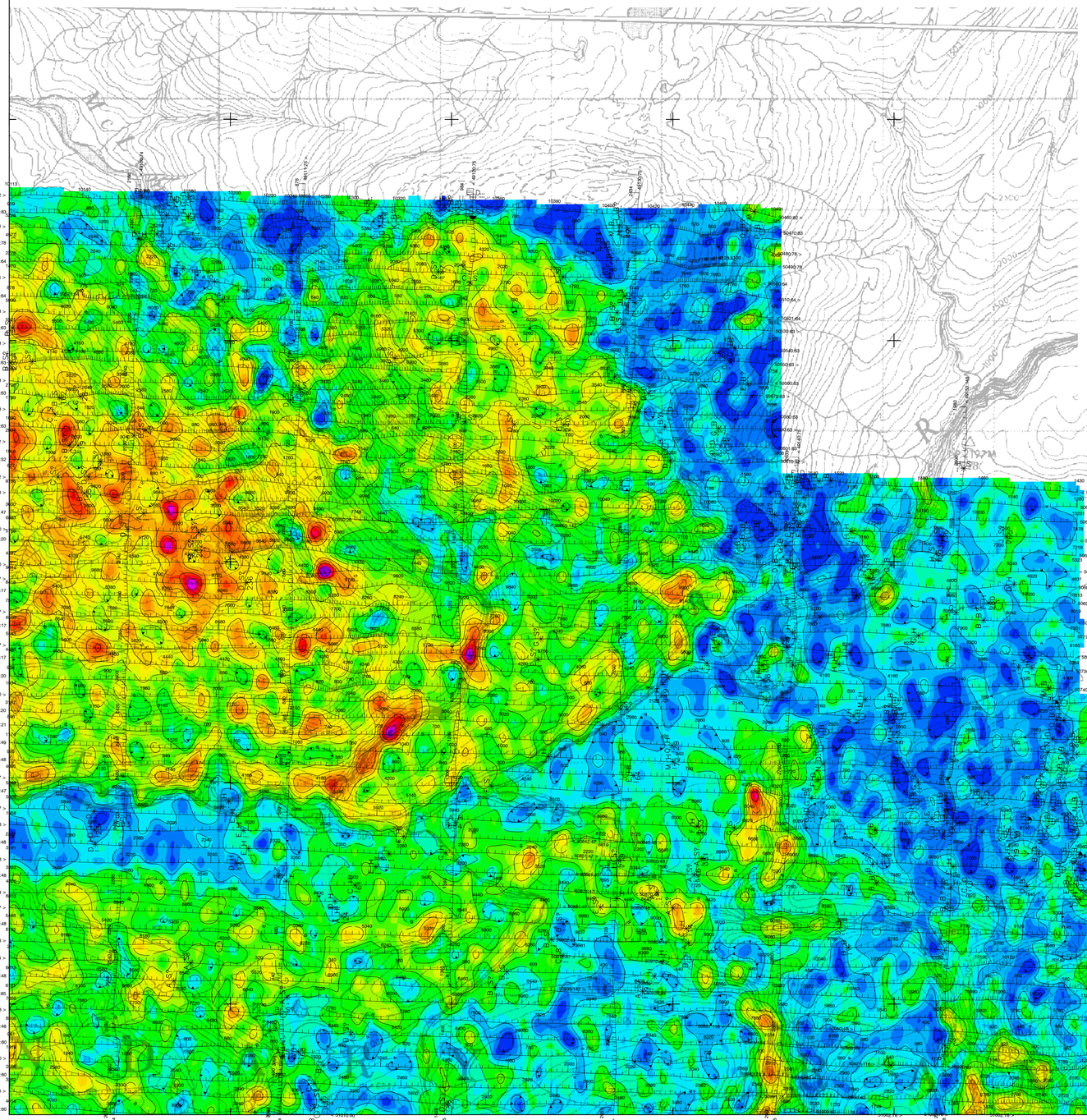
Fugro Airborne Surveys

0 1 2 Km
0 1 MI
Scale 1:20 000

FUGRO AIRBORNE SURVEYS

388000 E 390000 E 392000 E 394000 E 396000 E 398000 E 400000 E 402000 E

6296000 N 6294000 N 6292000 N 6290000 N 6288000 N 6286000 N 6284000 N 6282000 N



TECHNICAL SUMMARY

Navigation	Differentially–corrected GPS
Data reduction grid interval	38 metres
Terrain clearance	Helicopter, Spectrometer 57 m Electromagnetic sensor 30 m Magnetometer 30 m
Data sampling interval	0.1 second
Magnetometer / sensitivity	Cesium / 0.01 nT
Electromagnetic system	DIGHEM*
Spectrometer	GR820

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Grade	Anomaly	Conductance
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1		< 1 siemens
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Anomaly identifier; Interpretive symbol; Inphase and Quadrature of coaxial coil is greater than 5 ppm, 10 ppm, 15 ppm, 20 ppm; Depth is greater than 15 m, 30 m, 45 m, 60 m

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L	Culture, e.g. power line, metal building or fence

Th (cps)

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2

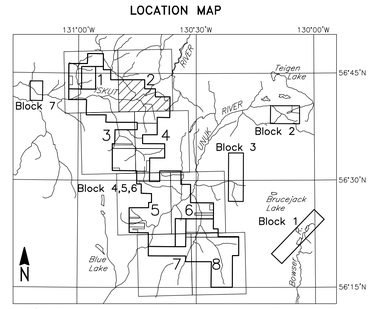
FLIGHT LINES WITH EM ANOMALIES

Flight number
Flight direction
Flight line number
11020
Reflight Number
Line Number
Area Number
Fiducials identified on profiles
Dip direction
EM anomaly (see EM legend)
Conductor axis (on EM maps only)
Arcs indicate the conductor has a thickness > 10m
Magnetic correlation in nT (gammas)

CONTOUR INTERVALS

100 cps
20 cps
4 cps
2 cps
low

LOCATION MAP



104B/7,8,10,11,14,15 UTM ZONE: 9 NAD83 SCALE: 1:700,000

HATHOR EXPLORATION LIMITED
ESKAY AREA BLOCKS 4–6, B.C.

RADIOMETRIC THORIUM COUNTS

FUGRO DIGHEM*/RAD SURVEY	NTS: 104B/7,8,10,11,14,15	GEOPHYSICIST:
DATE: DECEMBER, 2007	JOB: 06041	SHEET: 2

Fugro Airborne Surveys

0 1 2 Km
0 1 Mi
Scale 1:20 000

FUGRO AIRBORNE SURVEYS